



ENVIRONMENTAL COMPLIANCE SERVICES, INC.



1 Elm Street, Suite 3, Waterbury, VT 05676 tel 802.241.4131 fax 802.244.6894 www.ecsconsult.com

September 4, 2014  
Project No. 08-221182.00  
SMS Site #2014-4485

#### VIA ELECTRONIC MAIL

Ms. Lynda Provencher  
Vermont Department of Environmental Conservation  
Sites Management Section  
1 National Life Drive - Davis 1  
Montpelier, VT 05620-3704

RE: Seep and Surface Water Sampling Report  
Waterville VOCs  
Waterville Fire District #1(WSID #VT0005169)  
Waterville, VT

Dear Ms. Provencher:

Environmental Compliance Services, Inc. (ECS) is pleased to submit this summary report detailing the seep and surface water sampling along the North Branch of the Lamoille River in Waterville, Vermont (Figure 1). The Vermont Department of Environmental Conservation (VT DEC) requested an inspection of the bank of the North Branch of the Lamoille River following observations made by Mr. Marshall Pahl of the Waterville Fire District #1 on 13 July 2014. Mr. Pahl noted petroleum odors, orange staining and oil sheen along the bank of the river.

The North Branch of the Lamoille River is accessed from Route 109 at 619 Route 109 west of the Waterville Garage. The bank to the river is steeply sloping approximately 40 feet to the river. The river is turbulent in the area where the seeps are observed due to exposed bedrock and large boulders. ECS did not measure the surface water flow velocity. See attached photographs.

#### SEEP INSPECTION AND SAMPLING

ECS performed an inspection of the North Branch of the Lamoille River on 15 July 2014. Approximately seven seeps were observed along 100 feet of the river bank. ECS observed orange iron-staining indicative of bacteriologic activity, a strong gasoline odor and sheen on the water seeping from the bank. ECS also observed automotive debris, including rusted metal and tires, in the woods along the bank west of 619 Route 109. A previously identified ravine, filled with tires and automotive debris, is located north of 619 Route 109. Seeps emanating from the bank of the river in this location have not been sampled by ECS and do not exhibit obvious petroleum odors, iron staining or sheening.

The seeps were grouped into Upstream seeps, Midstream seeps and Downstream seeps for the purposes of sampling. ECS notified the VT DEC of field observations and it was agreed that samples should be collected from the seep areas. ECS collected three water samples at the upstream, midstream, and downstream seep locations. It is ECS' opinion that these seeps are groundwater discharge points and are generally representative of groundwater quality. Groundwater samples from the upstream and midstream locations were obtained from stagnant pools (seeps) located between the river bank and the surface water of the river. The downstream groundwater sample was collected from an actively flowing groundwater seep

WHERE BUSINESS AND THE ENVIRONMENT CONVERGE

NATIONWIDE COVERAGE

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along a bedrock outcrop. Water samples were collected by partially submerging a pre-preserved 40-milliliter voa vial into the standing water and using the cap to fill the remainder of the vial so that no airspace remained in the sample container. A soil sample was collected from the bank at the midstream seep location and a sandy sediment sample was collected along the bank in the downstream seep location. Soil samples were collected in unpreserved 8-ounce jars. All groundwater and soil samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260.

Several gasoline-related VOCs were detected in the groundwater samples collected from the seeps. Benzene was detected above the Vermont Groundwater Enforcement Standard (VGES) of 5 micrograms per liter ( $\mu\text{g}/\text{L}$ ) at all three seep locations, at concentrations ranging from 47.0  $\mu\text{g}/\text{L}$  in the midstream seep to 452  $\mu\text{g}/\text{L}$  in the upstream seep. Total trimethylbenzene and naphthalene concentrations exceeded the VGES at the upstream seep location. Seep sample locations are presented on Figure 1, which was generated by Lakeside Environmental Group (LEG) using GPS points obtained using a mobile phone application. A summary of water quality results is presented in Table 1.

Tert-amyl methyl ether (TAME), a gasoline additive, was also detected in the three seep samples at concentrations ranging from 1.24  $\mu\text{g}/\text{L}$  at the downstream seeps to 5.38  $\mu\text{g}/\text{L}$  at the upstream seeps. TAME is an oxygenate used by gasoline producers in the late 1970s and early 1980s to offset the loss of octane with the removal of lead. The presence of TAME in the seep samples suggests that the gasoline source may be associated with the more recent Waterville Garage release (vs the older generation gasoline stations at 619 and 598 Route 109); however, at this time there is unsufficient data to verify this gasoline source.

Soil samples were collected from the bank at the midstream seep location and a sand deposit along the bank in the downstream seep location. Soil samples were screened with a portable photoionization detector (PID), calibrated with isobutylene to a benzene reference. PID readings ranged from 1.8 parts per million (ppm) in the downstream sand to 12.5 ppm in the midstream seep soil. The midstream seep soil sample was analyzed for VOCs by EPA Method 8260 and total petroleum hydrocarbons (TPH) by EPA Method 8100. 1,2,4-Trimethylbenzene was detected in the mid seep soil sample at a concentration of 132 micrograms per kilograms ( $\mu\text{g}/\text{Kg}$ ), which is below the EPA Regional Screening Level (RSL) of 580  $\mu\text{g}/\text{Kg}$  for residential soil. TPH was detected at 105 milligrams per kilogram (mg/Kg) as an unidentified fuel, which is below the Vermont Guidance Value of 200 mg/Kg for residential soil. The downstream sand sample was analyzed only for TPH, which was not detected in the sample.

## SURFACE WATER SAMPLING

The seep sample results were submitted to the VT DEC on 25 July 2014 and, after notifying Mr. Jim Ryan of the Watershed Management Division, you requested surface water samples to be collected in proximity to the seeps and downstream near a popular swimming hole at the Church Street Bridge.

Surface water samples were collected by partially submerging a pre-preserved HCl 40-milliliter voa vial into the flowing water and using the cap to fill the remainder of the vial so that no preservative is lost and no airspace remained in the sample container. On 31 July 2014, ECS collected the following surface water samples, shown on Figure 1:

- Upstream SW
- Near Upstream Seep SW
- Near Downstream Seep SW
- Downstream SW
- Church St. Bridge SW

Page 3

Several gasoline-related VOCs were detected in the Near Upstream Seep SW sample, including benzene at a concentration of 34.0 µg/L, which exceeds the Vermont Water Quality Standard (WQS) for consumption of water and organisms of 1.2 µg/L. No VOCs were detected in the other four surface water samples. The laboratory analytical report is attached and water quality results are summarized in Table 1.

No sheens were observed on flowing surface water; however, evidence of iron bacteria and sheening were observed emanating from the seeps along the river bank. As a precautionary measure, ECS installed a total of six 10-foot oil-absorbent booms along the river bank at the seep locations. Booms were secured to trees and rocks to ensure they do not wash away with the current.

### **INDOOR VOC SCREENING AT 619 ROUTE 109**

On 15 July 2014, ECS inspected the unfinished basement at 619 Route 109, which is located closest to the observed seeps. The old water line was observed to be physically disconnected from the residential plumbing. The new water line enters the house in the northeast corner of the basement, which is reportedly a newer addition to the original structure. No PID readings were detected in the ambient air within the basement or near where the new water line enters the house. PID readings of 0.1 ppm were detected near the 275-gallon fuel oil above-ground storage tank (AST). PID readings between 0.1 ppm and 12.4 ppm were detected on the basement floor in the northeast corner of the original structure, near where the old water line enters the basement. Elevated readings were obtained in a small wet silty section of the floor near some rotted wooden framing. No petroleum odors were observed; however, a strong musty/mold smell was present.

Additional investigation has been approved upgradient of the seep locations in an effort to more fully understand the source of gasoline and the migration pathway to the river. This investigation includes soil borings, drinking water quality sampling and indoor air screening. Continued inspection of the river is recommended until corrective action measures can be taken to mitigate the impact of the gasoline release on sensitive receptors. If there are any questions regarding this report, please do not hesitate to contact our office.

Sincerely,  
**ENVIRONMENTAL COMPLIANCE SERVICES, INC.**

  
Laura L. Woodard

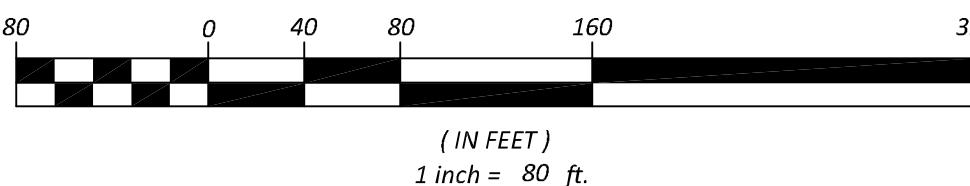
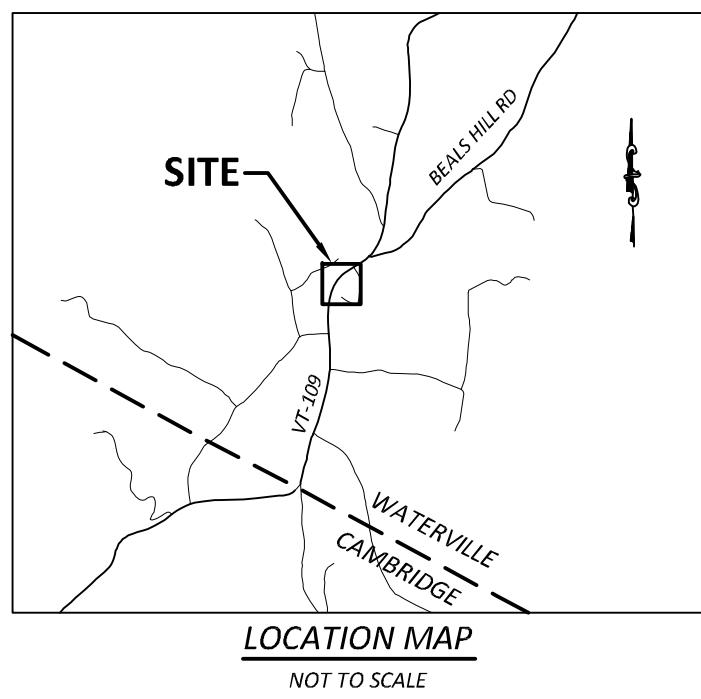
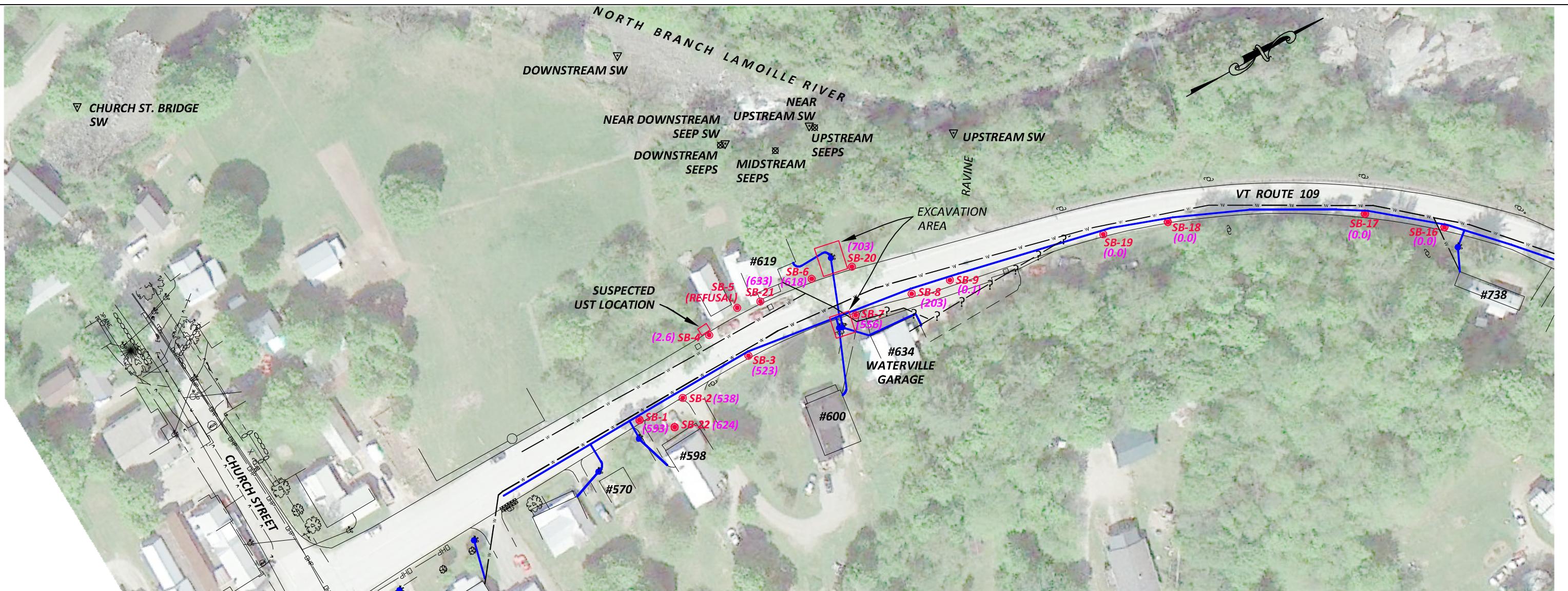
Sr. Project Manager

  
Joseph J. Hayes, CPG, PG

Branch Manager

Cc: Timothy Raymond, DWGPD (electronically)  
Ellen Parr Doering, DWGPD (electronically)  
Marshall Pahl, Water System Administrator (electronically)

Attachments: Figure 1 – Site Plan  
Table 1 – Summary of Water Quality Data  
Photodocumentation  
Laboratory Analytical Reports



LEGEND	
w	ABANDONED WATER LINE
—	CURRENT EXISTING WATER LINE
● SB	SOIL BORING
(203)	PID READING (ppm)
#570	ADDRESS ON ROUTE 109
?	? UNKNOWN OLD WATER LINE
□	PROPOSED EXCAVATION AREAS
☒	SEEP LOCATION
▽	SURFACE WATER SAMPLE LOCATION

#### NOTES

SOIL BORINGS BY ECS, LOCATED BY SUB-METER GPS  
ON 1/23/14.

WATER LINE LOCATIONS ARE FROM PLAN BY  
GREEN MOUNTAIN ENGINEERING AND FIELD  
GEOPHYSICAL SURVEY.

<b>ecs</b> 1 Elm Street, Suite 3, Waterbury, VT Phone: 1-800-520-8065 Fax: 802-434-8076			
<b>PROJECT:</b> <b>WATERVILLE FIRE DISTRICT 1</b> WATERVILLE, VERMONT			
<b>TITLE:</b> <b>SURFACE WATER &amp; SEEP SAMPLING LOCATIONS</b>			
<b>CLIENT:</b> <b>VT DEC</b>			
COMPUTER CADFILE : WATERVILLE.dwg			
DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
S.M.S.	L.W.	E.U.	
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
NOTED	8-29-14	08-221182.00	1

**Table 1.**  
**Seep and Surface Water Summary of Laboratory Analytical Results**

Waterville Fire District  
Waterville, VT

Sample ID	Sampling Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	n-Butylbenzene	sec-Butylbenzene	Isopropyl benzene	4-Isopropyl toluene	n-Propylbenzene	Total TMB	Naphthalene	TAME
<b>Seep Samples-Groundwater</b>														
Upstream	07/15/14	452	27.6	396	537	1,412	11.0	3.60	25.7	1.25	47.7	402	49.8	5.38
Midstream	07/15/14	47.0	4.97	28.7	138.5	219.2	1.26	1.18	1.68	BRL <1.0	2.69	67.4	14.0	1.49
Downstream	07/15/14	73.4	BRL <1.0	29.8	1.04	104.2	1.70	1.32	3.53	BRL <1.0	7.45	27.5	2.05	1.24
Trip Blank	07/15/14	BRL <1.00	BRL <1.00	BRL <1.00	BRL <3.00	BRL	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <2.00	BRL <1.00	BRL <1.00
<b>VGES</b>	--	<b>5</b>	<b>1,000</b>	<b>700</b>	<b>10,000</b>	--	--	--	--	--	--	<b>350</b>	<b>20</b>	--
<b>Surface Water Samples</b>														
Near Upstream Seep	07/31/14	<b>34.0</b>	<b>2.34</b>	<b>26.8</b>	<b>59.1</b>	BRL	BRL <1.0	BRL <1.0	<b>1.42</b>	BRL <1.0	<b>2.90</b>	<b>34.6</b>	<b>4.17</b>	BRL <1.0
Upstream	07/31/14	BRL <1.00	BRL <1.00	BRL <1.00	BRL <3.00	BRL	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <2.00	BRL <1.00	BRL <1.00
Near Downstream Seep	07/31/14	BRL <1.00	BRL <1.00	BRL <1.00	BRL <3.00	BRL	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <2.00	BRL <1.00	BRL <1.00
Downstream	07/31/14	BRL <1.00	BRL <1.00	BRL <1.00	BRL <3.00	BRL	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <2.00	BRL <1.00	BRL <1.00
Church Street Bridge	07/31/14	BRL <1.00	BRL <1.00	BRL <1.00	BRL <3.00	BRL	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <2.00	BRL <1.00	BRL <1.00
Trip Blank	07/31/14	BRL <1.00	BRL <1.00	BRL <1.00	BRL <3.00	BRL	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <1.00	BRL <2.00	BRL <1.00	BRL <1.00
<b>VTWQS</b>	--	<b>1.2</b>	<b>6,800</b>	<b>3,100</b>	--	--	--	--	--	--	--	--	--	--

Notes:

All samples were collected by Environmental Compliance Services, Inc. (ECS) and analyzed by Spectrum Analytical, Inc.

Results given in micrograms per liter ( $\mu\text{g/L}$ )

BTEX - A sum of benzene, toluene, ethylbenzene, and total xylenes

TMB - Trimethylbenzene

TAME - Tert-amyl methyl ether

BRL - Below Reporting Limits

VGES - Vermont Groundwater Enforcement Standards. Shaded area denotes an exceedance of the VGES.

VTWQS- Vermont Water Quality Standards. Shaded area denotes an exceedance of the VTWQS.

# PHOTOGRAPHIC LOG

Environmental Compliance Services, Inc.  
1 Elm St., Suite 3  
Waterbury, Vermont 05676

**eCS**

<b>Client Name:</b> <i>State of Vermont</i>	<b>Site Location:</b> <i>Waterville Fire District #1 Waterville, Vermont</i>	<b>ECS Project #:</b> <i>08-221182.00</i>
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# PHOTOGRAPHIC LOG

Environmental Compliance Services, Inc.  
1 Elm St., Suite 3  
Waterbury, Vermont 05676



**Client Name:**  
*State of Vermont*

**Site Location:**  
*Waterville Fire District #1  
Waterville, Vermont*

**ECS Project #:**  
*08-221182.00*

<b>Photograph #3</b>		
<b>Description:</b> <i>Downstream seep sample location.</i>		

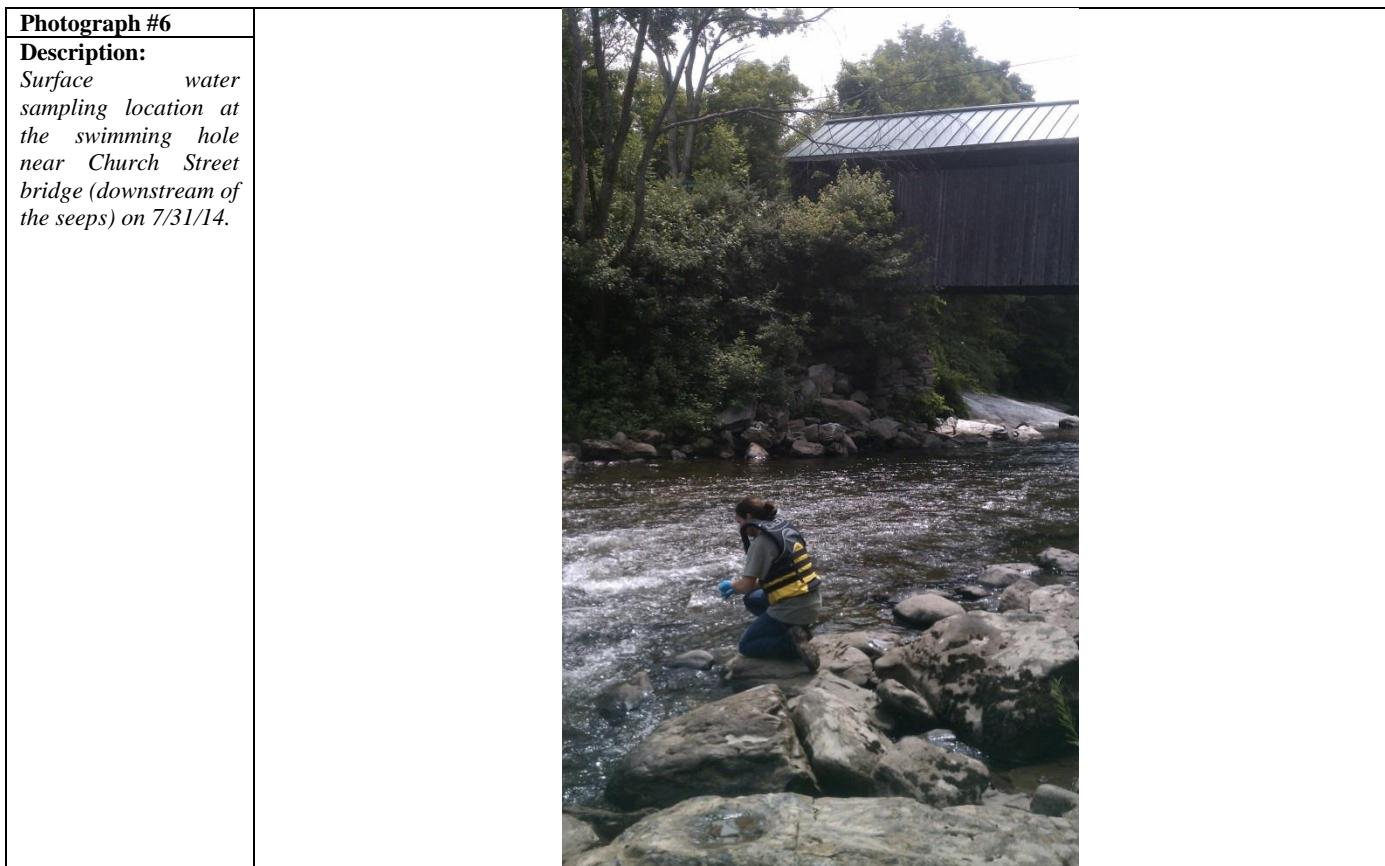
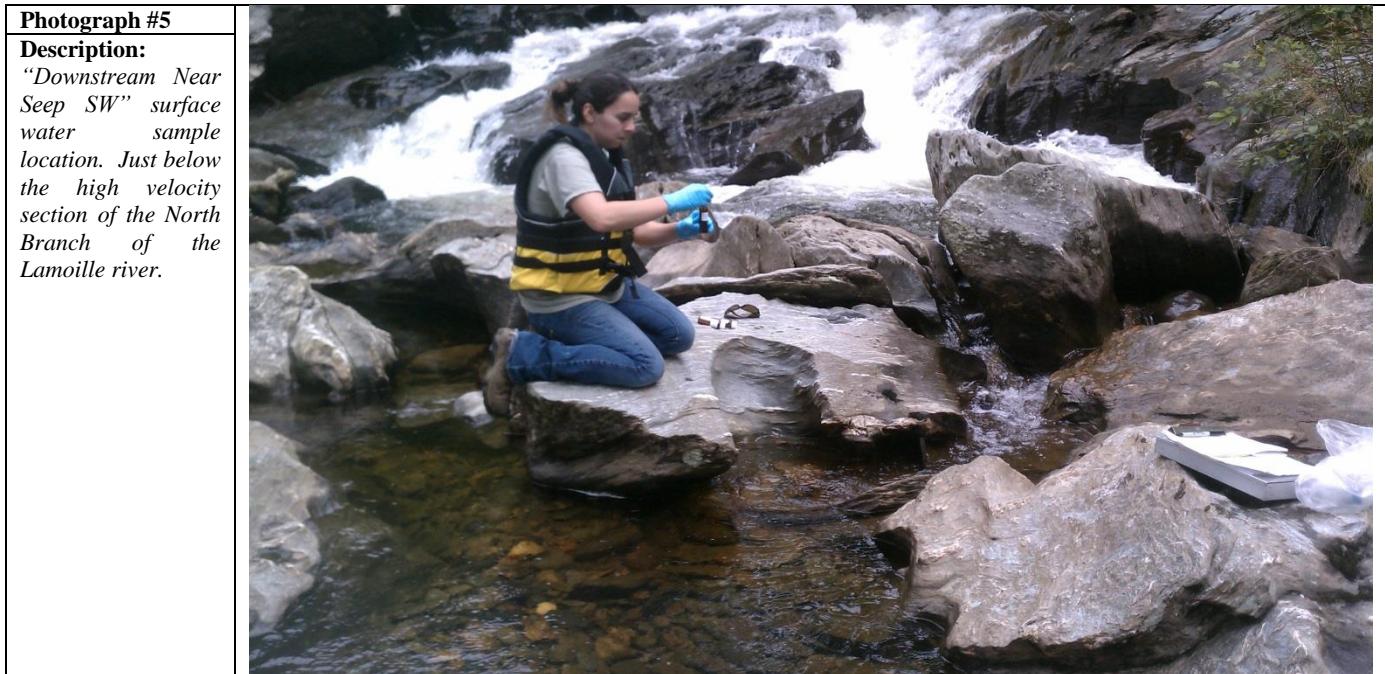
<b>Photograph #4</b>		
<b>Description:</b> <i>Upstream seeps with boom in place on 7/31/14.</i>		

# PHOTOGRAPHIC LOG

Environmental Compliance Services, Inc.  
1 Elm St., Suite 3  
Waterbury, Vermont 05676

**eCS**

<b>Client Name:</b> <i>State of Vermont</i>	<b>Site Location:</b> <i>Waterville Fire District #1 Waterville, Vermont</i>	<b>ECS Project #:</b> <i>08-221182.00</i>
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# PHOTOGRAPHIC LOG

Environmental Compliance Services, Inc.  
1 Elm St., Suite 3  
Waterbury, Vermont 05676

**ecs**

<b>Client Name:</b> <i>State of Vermont</i>	<b>Site Location:</b> <i>Waterville Fire District #1 Waterville, Vermont</i>	<b>ECS Project #:</b> <i>08-221182.00</i>
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<b>Photograph #7</b>		
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<b>Photograph #8</b>		
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# PHOTOGRAPHIC LOG

Environmental Compliance Services, Inc.  
1 Elm St., Suite 3  
Waterbury, Vermont 05676

**ecs**

<b>Client Name:</b> <i>State of Vermont</i>	<b>Site Location:</b> <i>Waterville Fire District #1 Waterville, Vermont</i>	<b>ECS Project #:</b> <i>08-221182.00</i>
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Report Date:  
24-Jul-14 14:12

- Final Report  
 Re-Issued Report  
 Revised Report



**SPECTRUM ANALYTICAL, INC.**  
*Featuring*  
**HANIBAL TECHNOLOGY**  
**Laboratory Report**

Environmental Compliance Services  
1 Elm St. Suite 3  
Waterbury, VT 05676  
Attn: Laura Woodard

Project: Waterville Fire District - Waterville, VT  
Project #: 08-221182.00

<b>Laboratory ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Date Received</b>
SB92975-01	Upstream	Ground Water	15-Jul-14 12:05	17-Jul-14 11:25
SB92975-02	Midsteam	Ground Water	15-Jul-14 12:44	17-Jul-14 11:25
SB92975-03	Downstream	Ground Water	15-Jul-14 12:20	17-Jul-14 11:25
SB92975-04	Mid Seep Soil	Soil	15-Jul-14 12:10	17-Jul-14 11:25
SB92975-05	Downstream Sand	Soil	15-Jul-14 12:30	17-Jul-14 11:25
SB92975-06	Trip Blank	Deionized Water	15-Jul-14 08:00	17-Jul-14 11:25

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.

All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110  
Connecticut # PH-0777  
Florida # E87600/E87936  
Maine # MA138  
New Hampshire # 2538  
New Jersey # MA011/MA012  
New York # 11393/11840  
Pennsylvania # 68-04426/68-02924  
Rhode Island # 98  
USDA # S-51435

Authorized by:

Nicole Leja  
Laboratory Director



Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 50 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

*Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at [www.spectrum-analytical.com](http://www.spectrum-analytical.com) for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, NJ-MA012, PA-68-04426 and FL-E87936).*

*Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.*

## CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

The samples were received 3.6 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Soils are run on a manual load instrument. 100ug of sample (MEOH) is spiked into 5ml DI water along with the surrogate and added directly onto the instrument. Additional dilution factors may be required to keep analyte concentration within instrument calibration range.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

**See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.**

## SW846 8260C

### Calibration:

1407003

---

Analyte quantified by quadratic equation type calibration.

1,2,3-Trichlorobenzene  
1,2,4-Trichlorobenzene  
1,2,4-Trimethylbenzene  
1,2-Dibromo-3-chloropropane  
1,2-Dibromoethane (EDB)  
1,3,5-Trichlorobenzene  
1,3,5-Trimethylbenzene  
2-Hexanone (MBK)  
4-Isopropyltoluene  
4-Methyl-2-pentanone (MIBK)  
Bromoform  
cis-1,3-Dichloropropene  
Dibromochloromethane  
Ethylbenzene  
Hexachlorobutadiene  
m,p-Xylene  
Naphthalene  
n-Butylbenzene  
n-Propylbenzene  
o-Xylene  
Styrene  
tert-Butylbenzene  
trans-1,3-Dichloropropene  
trans-1,4-Dichloro-2-butene

## **SW846 8260C**

### **Calibration:**

1407003

---

This affected the following samples:

1416688-BLK1

1416688-BS1

1416688-BSD1

1416796-BLK1

1416796-BS1

1416796-BSD1

Downstream

Midstream

S407397-ICV1

S408009-CCV1

S408081-CCV1

Trip Blank

Upstream

1407004

---

Analyte quantified by quadratic equation type calibration.

Naphthalene

This affected the following samples:

S407413-ICV1

1407042

---

Analyte quantified by quadratic equation type calibration.

1,2,3-Trichlorobenzene

1,2,4-Trichlorobenzene

1,4-Dioxane

2-Butanone (MEK)

2-Hexanone (MBK)

4-Methyl-2-pentanone (MIBK)

Acetone

Naphthalene

trans-1,3-Dichloropropene

trans-1,4-Dichloro-2-butene

This affected the following samples:

1416921-BLK1

1416921-BS1

1416921-BSD1

Mid Seep Soil

S408078-ICV1

S408147-CCV1

S407397-ICV1

---

Analyte percent recovery is outside individual acceptance criteria (80-120).

Acetone (78%)

Carbon tetrachloride (79%)

Dichlorodifluoromethane (Freon12) (71%)

## **SW846 8260C**

### **Calibration:**

S407397-ICV1

---

This affected the following samples:

1416688-BLK1

1416688-BS1

1416688-BSD1

1416796-BLK1

1416796-BS1

1416796-BSD1

Downstream

Midstream

S408009-CCV1

S408081-CCV1

Trip Blank

Upstream

S407413-ICV1

---

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,1,2-Trichlorotrifluoroethane (Freon 113) (79%)

Dichlorodifluoromethane (Freon12) (66%)

This affected the following samples:

1416790-BLK1

1416790-BS1

1416790-BSD1

1416790-MS1

1416790-MSD1

Mid Seep Soil

S408082-CCV1

S408078-ICV1

---

Analyte percent recovery is outside individual acceptance criteria (80-120).

Dichlorodifluoromethane (Freon12) (71%)

This affected the following samples:

1416921-BLK1

1416921-BS1

1416921-BSD1

Mid Seep Soil

S408147-CCV1

### **Laboratory Control Samples:**

1416688-BS1

---

LCS/LCSD were analyzed in place of MS/MSD.

1416688-BSD1

---

LCS/LCSD were analyzed in place of MS/MSD.

1416790 BS/BSD

---

1,2-Dibromo-3-chloropropane percent recoveries (62/59) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Mid Seep Soil

## **SW846 8260C**

### **Laboratory Control Samples:**

1416790 BS/BSD

---

Acetone percent recoveries (65/68) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Mid Seep Soil

1416796 BSD

---

4-Methyl-2-pentanone (MIBK) RPD 24% (20%) is outside individual acceptance criteria.

### **Spikes:**

1416790-MS1                  *Source: SB92975-04*

---

Analyte out of acceptance range in QC spike but no reportable concentration present in sample.

1,2-Dibromo-3-chloropropane

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,1,2-Trichlorotrifluoroethane (Freon 113)

1,3,5-Trimethylbenzene

1,3-Dichlorobenzene

Bromobenzene

Bromoform

Chlorobenzene

Chloromethane

Hexachlorobutadiene

Isopropylbenzene

m,p-Xylene

n-Propylbenzene

o-Xylene

sec-Butylbenzene

tert-Butylbenzene

Tetrachloroethene

1416790-MSD1                  *Source: SB92975-04*

---

Analyte out of acceptance range in QC spike but no reportable concentration present in sample.

1,2-Dibromo-3-chloropropane

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,1,2-Trichlorotrifluoroethane (Freon 113)

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

1,3-Dichlorobenzene

4-Chlorotoluene

Bromobenzene

Chloromethane

Hexachlorobutadiene

Isopropylbenzene

n-Propylbenzene

sec-Butylbenzene

Styrene

tert-Butylbenzene

Tetrachloroethene

### **Samples:**

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## **SW846 8260C**

### **Samples:**

#### **S408009-CCV1**

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Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2,2-Dichloropropane (21.3%)  
Bromomethane (23.5%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Acetone (-21.8%)  
Naphthalene (-21.6%)

This affected the following samples:

1416688-BLK1  
1416688-BS1  
1416688-BSD1  
Downstream  
Midstream  
Upstream

#### **S408081-CCV1**

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromomethane (20.9%)  
Vinyl chloride (23.4%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

1,1,1,2-Tetrachloroethane (-20.8%)  
1,2,3-Trichlorobenzene (-22.8%)  
1,2,4-Trichlorobenzene (-22.2%)  
1,2-Dibromo-3-chloropropane (-22.9%)  
Naphthalene (-31.4%)  
trans-1,4-Dichloro-2-butene (-20.7%)

This affected the following samples:

1416796-BLK1  
1416796-BS1  
1416796-BSD1  
Trip Blank

#### **S408082-CCV1**

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Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,2-Dibromo-3-chloropropane (-36.0%)  
trans-1,4-Dichloro-2-butene (-22.2%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Bromomethane (-20.6%)  
Carbon tetrachloride (-28.2%)  
Tert-Butanol / butyl alcohol (-33.2%)

This affected the following samples:

1416790-BLK1  
1416790-BS1  
1416790-BSD1  
1416790-MS1  
1416790-MSD1  
Mid Seep Soil

## **SW846 8260C**

### **Samples:**

SB92975-01RE1      *Upstream*

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Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB92975-04      *Mid Seep Soil*

---

Data confirmed with duplicate analysis.

1,2,4-Trimethylbenzene

## Sample Acceptance Check Form

Client: Environmental Compliance Services - Waterbury, VT  
Project: Waterville Fire District - Waterville, VT / 08-221182.00  
Work Order: SB92975  
Sample(s) received on: 7/17/2014  
Received by: Allison Edens

***The following outlines the condition of samples for the attached Chain of Custody upon receipt.***

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
1. Were custody seals present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Were custody seals intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Were samples received at a temperature of $\leq 6^{\circ}\text{C}$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Were samples cooled on ice upon transfer to laboratory representative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were samples refrigerated upon transfer to laboratory representative?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Were sample containers received intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Were samples accompanied by a Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Did sample container labels agree with Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Were samples received within method-specific holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sample Identification

Upstream

SB92975-01

Client Project #

08-221182.00

Matrix

Ground Water

Collection Date/Time

15-Jul-14 12:05

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.70	1	SW846 8260C	18-Jul-14	18-Jul-14	NAA	1416688	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.61	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
71-43-2	Benzene	550	E	µg/l	1.00	0.32	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.46	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	3.11	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	11.0		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	3.60		µg/l	1.00	0.41	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.75	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.71	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.65	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.46	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.20	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.40	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	369	E	µg/l	1.00	0.42	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.44	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	2.02	1	"	"	"	"	"	X

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Sample Identification

Upstream

SB92975-01

Client Project #

08-221182.00

Matrix

Ground Water

Collection Date/Time

15-Jul-14 12:05

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	<b>25.7</b>		µg/l	1.00	0.47	1	SW846 8260C	18-Jul-14	18-Jul-14	NAA	1416688	X
99-87-6	4-Isopropyltoluene	<b>1.25</b>		µg/l	1.00	0.49	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	2.47	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.49	1	"	"	"	"	"	X
91-20-3	Naphthalene	<b>49.8</b>		µg/l	1.00	0.54	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	<b>55.0</b>	E	µg/l	1.00	0.43	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	<b>27.6</b>		µg/l	1.00	0.28	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	<b>354</b>	E	µg/l	1.00	0.33	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	<b>66.2</b>	E	µg/l	1.00	0.39	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.97	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	<b>420</b>	E	µg/l	2.00	0.42	1	"	"	"	"	"	X
95-47-6	o-Xylene	<b>154</b>	E	µg/l	1.00	0.36	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	0.77	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.48	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	<b>5.38</b>		µg/l	1.00	0.30	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.89	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.6	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.97	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	80.8	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	102		70-130 %									
2037-26-5	Toluene-d8	108		70-130 %									
17060-07-0	1,2-Dichloroethane-d4	108		70-130 %									
1868-53-7	Dibromofluoromethane	105		70-130 %									

Re-analysis of Volatile Organic Compounds by SW846

GS1

8260

Prepared by method SW846 5030 Water MS

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Sample Identification

Upstream

SB92975-01

Client Project #

08-221182.00

Matrix

Ground Water

Collection Date/Time

15-Jul-14 12:05

Received

17-Jul-14

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
Re-analysis of Volatile Organic Compounds by SW846													
8260													
Prepared by method SW846 5030 Water MS													
71-43-2	Benzene	<b>452</b>	D	µg/l	10.0	3.17	10	SW846 8260C	21-Jul-14	22-Jul-14	NAA	1416796	X
100-41-4	Ethylbenzene	<b>396</b>	D	µg/l	10.0	4.16	10	"	"	"	"	"	X
103-65-1	n-Propylbenzene	<b>47.7</b>	D	µg/l	10.0	4.30	10	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	<b>348</b>	D	µg/l	10.0	3.31	10	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	<b>54.1</b>	D	µg/l	10.0	3.91	10	"	"	"	"	"	X
179601-23-1	m,p-Xylene	<b>464</b>	D	µg/l	20.0	4.16	10	"	"	"	"	"	X
95-47-6	o-Xylene	<b>72.5</b>	D	µg/l	10.0	3.56	10	"	"	"	"	"	X

## Surrogate recoveries:

2037-26-5	Toluene-d8	105	70-130 %	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	108	70-130 %	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	103	70-130 %	"	"	"	"	"	"

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Sample IdentificationMidsteam  
SB92975-02Client Project #  
08-221182.00Matrix  
Ground WaterCollection Date/Time  
15-Jul-14 12:44Received  
17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.70	1	SW846 8260C	18-Jul-14	18-Jul-14	NAA	1416688	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.61	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
71-43-2	Benzene	<b>47.0</b>		µg/l	1.00	0.32	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.46	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	3.11	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	<b>1.26</b>		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	<b>1.18</b>		µg/l	1.00	0.41	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.75	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.71	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.65	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.46	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.20	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.40	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	<b>28.7</b>		µg/l	1.00	0.42	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.44	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	2.02	1	"	"	"	"	"	X

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Sample IdentificationMidsteam  
SB92975-02

Client Project #

08-221182.00

Matrix

Ground Water

Collection Date/Time

15-Jul-14 12:44

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	<b>1.68</b>		µg/l	1.00	0.47	1	SW846 8260C	18-Jul-14	18-Jul-14	NAA	1416688	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	2.47	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.49	1	"	"	"	"	"	X
91-20-3	Naphthalene	<b>14.0</b>		µg/l	1.00	0.54	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	<b>2.69</b>		µg/l	1.00	0.43	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	<b>4.97</b>		µg/l	1.00	0.28	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	<b>45.6</b>		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	<b>21.8</b>		µg/l	1.00	0.39	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.97	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	<b>98.8</b>		µg/l	2.00	0.42	1	"	"	"	"	"	X
95-47-6	o-Xylene	<b>39.7</b>		µg/l	1.00	0.36	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	0.77	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.48	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	<b>1.49</b>		µg/l	1.00	0.30	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.89	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.6	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.97	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	80.8	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	100	70-130 %	"	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	104	70-130 %	"	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	103	70-130 %	"	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	100	70-130 %	"	"	"	"	"	"	"	"	"	"

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Sample Identification

Downstream

SB92975-03

Client Project #

08-221182.00

Matrix

Ground Water

Collection Date/Time

15-Jul-14 12:20

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.70	1	SW846 8260C	18-Jul-14	18-Jul-14	NAA	1416688	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.61	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
71-43-2	Benzene	<b>73.4</b>		µg/l	1.00	0.32	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.46	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	3.11	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	<b>1.70</b>		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	<b>1.32</b>		µg/l	1.00	0.41	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.75	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.71	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.65	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.46	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.20	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.40	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	<b>29.8</b>		µg/l	1.00	0.42	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.44	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	2.02	1	"	"	"	"	"	X

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Sample Identification

Downstream

SB92975-03

Client Project #

08-221182.00

Matrix

Ground Water

Collection Date/Time

15-Jul-14 12:20

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	<b>3.53</b>		µg/l	1.00	0.47	1	SW846 8260C	18-Jul-14	18-Jul-14	NAA	1416688	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	2.47	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.49	1	"	"	"	"	"	X
91-20-3	Naphthalene	<b>2.05</b>		µg/l	1.00	0.54	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	<b>7.45</b>		µg/l	1.00	0.43	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	<b>27.5</b>		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.97	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.42	1	"	"	"	"	"	X
95-47-6	o-Xylene	<b>1.04</b>		µg/l	1.00	0.36	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	0.77	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.48	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	<b>1.24</b>		µg/l	1.00	0.30	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.89	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.6	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.97	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	80.8	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	92	70-130 %	"	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	102	70-130 %	"	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	104	70-130 %	"	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	101	70-130 %	"	"	"	"	"	"	"	"	"	"

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Sample Identification

Mid Deep Soil

SB92975-04

Client Project #

08-221182.00

Matrix

Soil

Collection Date/Time

15-Jul-14 12:10

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
	VOC Extraction		Field extracted	N/A			1	VOC Soil Extraction			BD	1416629	
<b>Volatile Organic Compounds by SW846 8260</b>													
<b>Prepared by method SW846 5035A Soil (high level)</b>													
								Initial weight: 31.91 g					
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 90.0	D	µg/kg dry	90.0	72.9	50	SW846 8260C	21-Jul-14	21-Jul-14	SJB	1416790	X
67-64-1	Acetone	< 900	D	µg/kg dry	900	474	50	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 90.0	D	µg/kg dry	90.0	60.2	50	"	"	"	"	"	X
71-43-2	Benzene	< 90.0	D	µg/kg dry	90.0	32.4	50	"	"	"	"	"	X
108-86-1	Bromobenzene	< 90.0	D	µg/kg dry	90.0	60.7	50	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 90.0	D	µg/kg dry	90.0	89.4	50	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 90.0	D	µg/kg dry	90.0	70.3	50	"	"	"	"	"	X
75-25-2	Bromoform	< 90.0	D	µg/kg dry	90.0	86.2	50	"	"	"	"	"	X
74-83-9	Bromomethane	< 180	D	µg/kg dry	180	177	50	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 900	D	µg/kg dry	900	303	50	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 90.0	D	µg/kg dry	90.0	74.1	50	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 90.0	D	µg/kg dry	90.0	58.3	50	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 90.0	D	µg/kg dry	90.0	64.2	50	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 180	D	µg/kg dry	180	45.0	50	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 90.0	D	µg/kg dry	90.0	43.8	50	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 90.0	D	µg/kg dry	90.0	31.5	50	"	"	"	"	"	X
75-00-3	Chloroethane	< 180	D	µg/kg dry	180	77.7	50	"	"	"	"	"	X
67-66-3	Chloroform	< 90.0	D	µg/kg dry	90.0	46.7	50	"	"	"	"	"	X
74-87-3	Chloromethane	< 180	D	µg/kg dry	180	176	50	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 90.0	D	µg/kg dry	90.0	40.3	50	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 90.0	D	µg/kg dry	90.0	47.5	50	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 180	D	µg/kg dry	180	117	50	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 90.0	D	µg/kg dry	90.0	32.4	50	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 90.0	D	µg/kg dry	90.0	20.4	50	"	"	"	"	"	X
74-95-3	Dibromomethane	< 90.0	D	µg/kg dry	90.0	50.1	50	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 90.0	D	µg/kg dry	90.0	42.1	50	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 90.0	D	µg/kg dry	90.0	64.0	50	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 90.0	D	µg/kg dry	90.0	49.8	50	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 180	D	µg/kg dry	180	65.4	50	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 90.0	D	µg/kg dry	90.0	35.1	50	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 90.0	D	µg/kg dry	90.0	45.8	50	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 90.0	D	µg/kg dry	90.0	60.1	50	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 90.0	D	µg/kg dry	90.0	30.5	50	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 90.0	D	µg/kg dry	90.0	61.9	50	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 90.0	D	µg/kg dry	90.0	40.7	50	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 90.0	D	µg/kg dry	90.0	31.5	50	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 90.0	D	µg/kg dry	90.0	56.7	50	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 90.0	D	µg/kg dry	90.0	54.4	50	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 90.0	D	µg/kg dry	90.0	23.7	50	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 90.0	D	µg/kg dry	90.0	45.5	50	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 90.0	D	µg/kg dry	90.0	30.1	50	"	"	"	"	"	X

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Sample Identification

Mid Deep Soil

SB92975-04

Client Project #

08-221182.00

Matrix

Soil

Collection Date/Time

15-Jul-14 12:10

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
Prepared by method SW846 5035A Soil (high level)													
								Initial weight: 31.91 g					
87-68-3	Hexachlorobutadiene	< 90.0	D	µg/kg dry	90.0	32.7	50	SW846 8260C	21-Jul-14	21-Jul-14	SJB	1416790	X
591-78-6	2-Hexanone (MBK)	< 900	D	µg/kg dry	900	207	50	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 90.0	D	µg/kg dry	90.0	78.6	50	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	< 90.0	D	µg/kg dry	90.0	53.4	50	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 90.0	D	µg/kg dry	90.0	47.4	50	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 900	D	µg/kg dry	900	279	50	"	"	"	"	"	X
75-09-2	Methylene chloride	< 180	D	µg/kg dry	180	54.3	50	"	"	"	"	"	X
91-20-3	Naphthalene	< 90.0	D	µg/kg dry	90.0	61.1	50	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 90.0	D	µg/kg dry	90.0	36.2	50	"	"	"	"	"	X
100-42-5	Styrene	< 90.0	D	µg/kg dry	90.0	5.3	50	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 90.0	D	µg/kg dry	90.0	54.1	50	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 90.0	D	µg/kg dry	90.0	59.1	50	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 90.0	D	µg/kg dry	90.0	61.1	50	"	"	"	"	"	X
108-88-3	Toluene	< 90.0	D	µg/kg dry	90.0	37.8	50	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 90.0	D	µg/kg dry	90.0	63.9	50	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 90.0	D	µg/kg dry	90.0	52.5	50	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 90.0	D	µg/kg dry	90.0	21.1	50	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 90.0	D	µg/kg dry	90.0	50.7	50	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 90.0	D	µg/kg dry	90.0	36.2	50	"	"	"	"	"	X
79-01-6	Trichloroethene	< 90.0	D	µg/kg dry	90.0	28.8	50	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 90.0	D	µg/kg dry	90.0	61.6	50	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 90.0	D	µg/kg dry	90.0	54.1	50	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	132	V11, D	µg/kg dry	90.0	55.2	50	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 90.0	D	µg/kg dry	90.0	53.9	50	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 90.0	D	µg/kg dry	90.0	60.1	50	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 180	D	µg/kg dry	180	51.7	50	"	"	"	"	"	X
95-47-6	o-Xylene	< 90.0	D	µg/kg dry	90.0	56.9	50	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 180	D	µg/kg dry	180	132	50	"	"	"	"	"	
60-29-7	Ethyl ether	< 90.0	D	µg/kg dry	90.0	81.4	50	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 90.0	D	µg/kg dry	90.0	52.5	50	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 90.0	D	µg/kg dry	90.0	26.5	50	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 90.0	D	µg/kg dry	90.0	24.4	50	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 900	D	µg/kg dry	900	536	50	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 1800	D	µg/kg dry	1800	1210	50	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 450	D	µg/kg dry	450	222	50	"	"	"	"	"	X
64-17-5	Ethanol	< 36000	D	µg/kg dry	36000	10300	50	"	"	"	"	"	

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	105	70-130 %	"	"	"	"	"
2037-26-5	Toluene-d8	101	70-130 %	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	91	70-130 %	"	"	"	"	"
1868-53-7	Dibromofluoromethane	93	70-130 %	"	"	"	"	"

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Sample Identification

Mid Deep Soil

SB92975-04

Client Project #

08-221182.00

Matrix

Soil

Collection Date/Time

15-Jul-14 12:10

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Re-analysis of Volatile Organic Compounds by SW846													
8260													
Prepared by method SW846 5035A Soil (low level)													
Initial weight: 13.09 g													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 8.2		µg/kg dry	8.2	6.6	1	SW846 8260C	22-Jul-14	22-Jul-14	JEG	1416921	X
67-64-1	Acetone	< 81.6		µg/kg dry	81.6	43.0	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 8.2		µg/kg dry	8.2	5.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 8.2		µg/kg dry	8.2	2.9	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 8.2		µg/kg dry	8.2	5.5	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 8.2		µg/kg dry	8.2	8.1	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 8.2		µg/kg dry	8.2	6.4	1	"	"	"	"	"	X
75-25-2	Bromoform	< 8.2		µg/kg dry	8.2	7.8	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 16.3		µg/kg dry	16.3	16.1	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 81.6		µg/kg dry	81.6	27.5	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 8.2		µg/kg dry	8.2	6.7	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 8.2		µg/kg dry	8.2	5.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 8.2		µg/kg dry	8.2	5.8	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 16.3		µg/kg dry	16.3	4.1	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 8.2		µg/kg dry	8.2	4.0	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 8.2		µg/kg dry	8.2	2.9	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 16.3		µg/kg dry	16.3	7.0	1	"	"	"	"	"	X
67-66-3	Chloroform	< 8.2		µg/kg dry	8.2	4.2	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 16.3		µg/kg dry	16.3	16.0	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 8.2		µg/kg dry	8.2	3.7	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 8.2		µg/kg dry	8.2	4.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropene	< 16.3		µg/kg dry	16.3	10.6	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 8.2		µg/kg dry	8.2	2.9	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 8.2		µg/kg dry	8.2	1.9	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 8.2		µg/kg dry	8.2	4.5	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 8.2		µg/kg dry	8.2	3.8	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 8.2		µg/kg dry	8.2	5.8	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 8.2		µg/kg dry	8.2	4.5	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 16.3		µg/kg dry	16.3	5.9	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 8.2		µg/kg dry	8.2	3.2	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 8.2		µg/kg dry	8.2	4.2	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 8.2		µg/kg dry	8.2	5.5	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 8.2		µg/kg dry	8.2	2.8	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 8.2		µg/kg dry	8.2	5.6	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 8.2		µg/kg dry	8.2	3.7	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 8.2		µg/kg dry	8.2	2.9	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 8.2		µg/kg dry	8.2	5.1	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 8.2		µg/kg dry	8.2	4.9	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 8.2		µg/kg dry	8.2	2.1	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 8.2		µg/kg dry	8.2	4.1	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 8.2		µg/kg dry	8.2	2.7	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 8.2		µg/kg dry	8.2	3.0	1	"	"	"	"	"	X

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Sample Identification

Mid Deep Soil

SB92975-04

Client Project #

08-221182.00

Matrix

Soil

Collection Date/Time

15-Jul-14 12:10

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Re-analysis of Volatile Organic Compounds by SW846													
8260													
Prepared by method SW846 5035A Soil (low level)													
Initial weight: 13.09 g													
591-78-6	2-Hexanone (MBK)	< 81.6		µg/kg dry	81.6	18.8	1	SW846 8260C	22-Jul-14	22-Jul-14	JEG	1416921	X
98-82-8	Isopropylbenzene	< 8.2		µg/kg dry	8.2	7.1	1	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	< 8.2		µg/kg dry	8.2	4.8	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 8.2		µg/kg dry	8.2	4.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 81.6		µg/kg dry	81.6	25.3	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 16.3		µg/kg dry	16.3	4.9	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 8.2		µg/kg dry	8.2	5.5	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 8.2		µg/kg dry	8.2	3.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 8.2		µg/kg dry	8.2	0.5	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 8.2		µg/kg dry	8.2	4.9	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 8.2		µg/kg dry	8.2	5.4	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 8.2		µg/kg dry	8.2	5.5	1	"	"	"	"	"	X
108-88-3	Toluene	< 8.2		µg/kg dry	8.2	3.4	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 8.2		µg/kg dry	8.2	5.8	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 8.2		µg/kg dry	8.2	4.8	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 8.2		µg/kg dry	8.2	1.9	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 8.2		µg/kg dry	8.2	4.6	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 8.2		µg/kg dry	8.2	3.3	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 8.2		µg/kg dry	8.2	2.6	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 8.2		µg/kg dry	8.2	5.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 8.2		µg/kg dry	8.2	4.9	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 8.2		µg/kg dry	8.2	5.0	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 8.2		µg/kg dry	8.2	4.9	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 8.2		µg/kg dry	8.2	5.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 16.3		µg/kg dry	16.3	4.7	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 8.2		µg/kg dry	8.2	5.2	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 16.3		µg/kg dry	16.3	12.0	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 8.2		µg/kg dry	8.2	7.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 8.2		µg/kg dry	8.2	4.8	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 8.2		µg/kg dry	8.2	2.4	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 8.2		µg/kg dry	8.2	2.2	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 81.6		µg/kg dry	81.6	48.6	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 163		µg/kg dry	163	110	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 40.8		µg/kg dry	40.8	20.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 3260		µg/kg dry	3260	931	1	"	"	"	"	"	

## Surrogate recoveries:

460-00-4	4-Bromo- <i>fluorobenzene</i>	102	70-130 %	"	"	"	"	"
2037-26-5	Toluene-d8	101	70-130 %	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	111	70-130 %	"	"	"	"	"
1868-53-7	Dibromo- <i>fluoromethane</i>	98	70-130 %	"	"	"	"	"

## Extractable Petroleum Hydrocarbons

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Sample Identification

Mid Deep Soil

SB92975-04

Client Project #

08-221182.00

Matrix

Soil

Collection Date/Time

15-Jul-14 12:10

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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**Extractable Petroleum Hydrocarbons**Fingerprinting by GCPrepared by method SW846 3550C

8006-61-9	Gasoline	< 49.7		mg/kg dry	49.7	40.7	1	SW846 8100Mod.	18-Jul-14	21-Jul-14	SEP	1416653
68476-30-2	Fuel Oil #2	< 49.7		mg/kg dry	49.7	27.3	1	"	"	"	"	"
68476-31-3	Fuel Oil #4	< 49.7		mg/kg dry	49.7	5.0	1	"	"	"	"	"
68553-00-4	Fuel Oil #6	< 49.7		mg/kg dry	49.7	30.1	1	"	"	"	"	"
M09800000	Motor Oil	< 49.7		mg/kg dry	49.7	23.9	1	"	"	"	"	"
8032-32-4	Ligroin	< 49.7		mg/kg dry	49.7	12.4	1	"	"	"	"	"
J00100000	Aviation Fuel	< 49.7		mg/kg dry	49.7	12.4	1	"	"	"	"	"
	Hydraulic Oil	< 49.7		mg/kg dry	49.7	5.0	1	"	"	"	"	"
	Dielectric Fluid	< 49.7		mg/kg dry	49.7	12.4	1	"	"	"	"	"
	Unidentified	105		mg/kg dry	49.7	12.4	1	"	"	"	"	"
	Other Oil	Calculated as		mg/kg dry	49.7	5.0	1	"	"	"	"	"
	Total Petroleum Hydrocarbons	105		mg/kg dry	49.7	5.0	1	"	"	"	"	"

Surrogate recoveries:

3386-33-2	1-Chlorooctadecane	90	40-140 %	"	"	"	"	"
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**General Chemistry Parameters**

% Solids	52.5	%		1	SM2540 G Mod.	18-Jul-14	18-Jul-14	DT	1416719
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Sample Identification

Downstream Sand

SB92975-05

Client Project #

08-221182.00

Matrix

Soil

Collection Date/Time

15-Jul-14 12:30

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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**Extractable Petroleum Hydrocarbons**

Fingerprinting by GC

Prepared by method SW846 3550C

8006-61-9	Gasoline	< 33.7		mg/kg dry	33.7	27.6	1	SW846 8100Mod.	18-Jul-14	21-Jul-14	SEP	1416653
68476-30-2	Fuel Oil #2	< 33.7		mg/kg dry	33.7	18.5	1	"	"	"	"	"
68476-31-3	Fuel Oil #4	< 33.7		mg/kg dry	33.7	3.4	1	"	"	"	"	"
68553-00-4	Fuel Oil #6	< 33.7		mg/kg dry	33.7	20.4	1	"	"	"	"	"
M09800000	Motor Oil	< 33.7		mg/kg dry	33.7	16.2	1	"	"	"	"	"
8032-32-4	Ligroin	< 33.7		mg/kg dry	33.7	8.4	1	"	"	"	"	"
J00100000	Aviation Fuel	< 33.7		mg/kg dry	33.7	8.4	1	"	"	"	"	"
	Hydraulic Oil	< 33.7		mg/kg dry	33.7	3.4	1	"	"	"	"	"
	Dielectric Fluid	< 33.7		mg/kg dry	33.7	8.4	1	"	"	"	"	"
	Unidentified	< 33.7		mg/kg dry	33.7	8.4	1	"	"	"	"	"
	Other Oil	< 33.7		mg/kg dry	33.7	3.4	1	"	"	"	"	"
Total Petroleum Hydrocarbons		< 33.7		mg/kg dry	33.7	3.4	1	"	"	"	"	"

Surrogate recoveries:

3386-33-2	1-Chlorooctadecane	95	40-140 %	"	"	"	"	"	"
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**General Chemistry Parameters**

% Solids	<b>78.7</b>	%		1	SM2540 G Mod.	18-Jul-14	18-Jul-14	DT	1416719
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*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

Trip Blank

SB92975-06

Client Project #

08-221182.00

Matrix

Deionized Water

Collection Date/Time

15-Jul-14 08:00

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.70	1	SW846 8260C	21-Jul-14	22-Jul-14	NAA	1416796	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.61	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.46	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	3.11	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.75	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.71	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.65	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.46	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.20	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.40	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.44	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	2.02	1	"	"	"	"	"	X

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Sample Identification

Trip Blank

SB92975-06

Client Project #

08-221182.00

Matrix

Deionized Water

Collection Date/Time

15-Jul-14 08:00

Received

17-Jul-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.47	1	SW846 8260C	21-Jul-14	22-Jul-14	NAA	1416796	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	2.47	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.49	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.54	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.97	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.42	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	0.77	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.48	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.89	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.6	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.97	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	80.8	1	"	"	"	"	"	X

## Surrogate recoveries:

2037-26-5	Toluene-d8	105	70-130 %										
17060-07-0	1,2-Dichloroethane-d4	106	70-130 %										
1868-53-7	Dibromofluoromethane	102	70-130 %										

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416688 - SW846 5030 Water MS</b>										
<u>Blank (1416688-BLK1)</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.50		µg/l	0.50						
Benzene	< 1.00		µg/l	1.00						
Bromobenzene	< 1.00		µg/l	1.00						
Bromoform	< 1.00		µg/l	1.00						
Bromochloromethane	< 0.50		µg/l	0.50						
Bromodichloromethane	< 1.00		µg/l	1.00						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.00		µg/l	1.00						
sec-Butylbenzene	< 1.00		µg/l	1.00						
tert-Butylbenzene	< 1.00		µg/l	1.00						
Carbon disulfide	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00		µg/l	2.00						
2-Chlorotoluene	< 1.00		µg/l	1.00						
4-Chlorotoluene	< 1.00		µg/l	1.00						
1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50						
Dibromomethane	< 1.00		µg/l	1.00						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
1,3-Dichloropropane	< 1.00		µg/l	1.00						
2,2-Dichloropropane	< 1.00		µg/l	1.00						
1,1-Dichloropropene	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Ethylbenzene	< 1.00		µg/l	1.00						
Hexachlorobutadiene	< 0.50		µg/l	0.50						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.00		µg/l	1.00						
4-Isopropyltoluene	< 1.00		µg/l	1.00						
Methyl tert-butyl ether	< 1.00		µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.00		µg/l	2.00						
Naphthalene	< 1.00		µg/l	1.00						
n-Propylbenzene	< 1.00		µg/l	1.00						
Styrene	< 1.00		µg/l	1.00						
1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00						

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416688 - SW846 5030 Water MS</b>										
<u>Blank (1416688-BLK1)</u>										
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
Toluene	< 1.00		µg/l	1.00						
1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00						
1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						
1,2,3-Trichloropropane	< 1.00		µg/l	1.00						
1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00						
1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
m,p-Xylene	< 2.00		µg/l	2.00						
o-Xylene	< 1.00		µg/l	1.00						
Tetrahydrofuran	< 2.00		µg/l	2.00						
Ethyl ether	< 1.00		µg/l	1.00						
Tert-amyl methyl ether	< 1.00		µg/l	1.00						
Ethyl tert-butyl ether	< 1.00		µg/l	1.00						
Di-isopropyl ether	< 1.00		µg/l	1.00						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.00		µg/l	5.00						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	41.1		µg/l	50.0		82		70-130		
Surrogate: Toluene-d8	50.8		µg/l	50.0		102		70-130		
Surrogate: 1,2-Dichloroethane-d4	54.4		µg/l	50.0		109		70-130		
Surrogate: Dibromofluoromethane	51.6		µg/l	50.0		103		70-130		
<u>LCS (1416688-BS1)</u>										
		QM10								
<u>Prepared &amp; Analyzed: 18-Jul-14</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	<b>22.3</b>		µg/l	20.0		112		70-130		
Acetone	<b>15.6</b>		µg/l	20.0		78		70-130		
Acrylonitrile	<b>19.0</b>		µg/l	20.0		95		70-130		
Benzene	<b>20.3</b>		µg/l	20.0		101		70-130		
Bromobenzene	<b>21.8</b>		µg/l	20.0		109		70-130		
Bromoform	<b>20.4</b>		µg/l	20.0		102		70-130		
Bromochloromethane	<b>22.2</b>		µg/l	20.0		111		70-130		
Bromodichloromethane	<b>19.7</b>		µg/l	20.0		98		70-130		
Bromoform	<b>24.7</b>		µg/l	20.0		124		70-130		
2-Butanone (MEK)	<b>20.6</b>		µg/l	20.0		103		70-130		
n-Butylbenzene	<b>21.1</b>		µg/l	20.0		105		70-130		
sec-Butylbenzene	<b>21.0</b>		µg/l	20.0		105		70-130		
tert-Butylbenzene	<b>22.6</b>		µg/l	20.0		113		70-130		
Carbon disulfide	<b>21.9</b>		µg/l	20.0		110		70-130		
Carbon tetrachloride	<b>19.7</b>		µg/l	20.0		99		70-130		
Chlorobenzene	<b>20.6</b>		µg/l	20.0		103		70-130		
Chloroethane	<b>19.9</b>		µg/l	20.0		99		70-130		
Chloroform	<b>20.8</b>		µg/l	20.0		104		70-130		
Chloromethane	<b>20.4</b>		µg/l	20.0		102		70-130		
2-Chlorotoluene	<b>22.1</b>		µg/l	20.0		110		70-130		
4-Chlorotoluene	<b>20.8</b>		µg/l	20.0		104		70-130		

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### Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416688 - SW846 5030 Water MS</b>										
<u>LCS (1416688-BS1)</u>										
QM10										
<u>Prepared &amp; Analyzed: 18-Jul-14</u>										
1,2-Dibromo-3-chloropropane	<b>17.4</b>		µg/l		20.0	87	70-130			
Dibromochloromethane	<b>21.2</b>		µg/l		20.0	106	70-130			
1,2-Dibromoethane (EDB)	<b>21.7</b>		µg/l		20.0	108	70-130			
Dibromomethane	<b>21.6</b>		µg/l		20.0	108	70-130			
1,2-Dichlorobenzene	<b>19.7</b>		µg/l		20.0	99	70-130			
1,3-Dichlorobenzene	<b>21.9</b>		µg/l		20.0	109	70-130			
1,4-Dichlorobenzene	<b>18.1</b>		µg/l		20.0	91	70-130			
Dichlorodifluoromethane (Freon12)	<b>21.4</b>		µg/l		20.0	107	70-130			
1,1-Dichloroethane	<b>20.0</b>		µg/l		20.0	100	70-130			
1,2-Dichloroethane	<b>22.2</b>		µg/l		20.0	111	70-130			
1,1-Dichloroethene	<b>22.3</b>		µg/l		20.0	112	70-130			
cis-1,2-Dichloroethene	<b>20.2</b>		µg/l		20.0	101	70-130			
trans-1,2-Dichloroethene	<b>20.8</b>		µg/l		20.0	104	70-130			
1,2-Dichloropropane	<b>19.2</b>		µg/l		20.0	96	70-130			
1,3-Dichloropropane	<b>21.0</b>		µg/l		20.0	105	70-130			
2,2-Dichloropropane	<b>24.3</b>		µg/l		20.0	121	70-130			
1,1-Dichloropropene	<b>23.2</b>		µg/l		20.0	116	70-130			
cis-1,3-Dichloropropene	<b>19.7</b>		µg/l		20.0	98	70-130			
trans-1,3-Dichloropropene	<b>19.4</b>		µg/l		20.0	97	70-130			
Ethylbenzene	<b>19.5</b>		µg/l		20.0	97	70-130			
Hexachlorobutadiene	<b>21.2</b>		µg/l		20.0	106	70-130			
2-Hexanone (MBK)	<b>20.3</b>		µg/l		20.0	102	70-130			
Isopropylbenzene	<b>21.2</b>		µg/l		20.0	106	70-130			
4-Isopropyltoluene	<b>19.0</b>		µg/l		20.0	95	70-130			
Methyl tert-butyl ether	<b>20.4</b>		µg/l		20.0	102	70-130			
4-Methyl-2-pentanone (MIBK)	<b>19.0</b>		µg/l		20.0	95	70-130			
Methylene chloride	<b>19.3</b>		µg/l		20.0	97	70-130			
Naphthalene	<b>15.7</b>		µg/l		20.0	78	70-130			
n-Propylbenzene	<b>23.7</b>		µg/l		20.0	119	70-130			
Styrene	<b>21.1</b>		µg/l		20.0	105	70-130			
1,1,1,2-Tetrachloroethane	<b>16.6</b>		µg/l		20.0	83	70-130			
1,1,2,2-Tetrachloroethane	<b>20.9</b>		µg/l		20.0	104	70-130			
Tetrachloroethene	<b>20.0</b>		µg/l		20.0	100	70-130			
Toluene	<b>21.3</b>		µg/l		20.0	106	70-130			
1,2,3-Trichlorobenzene	<b>17.4</b>		µg/l		20.0	87	70-130			
1,2,4-Trichlorobenzene	<b>17.1</b>		µg/l		20.0	86	70-130			
1,3,5-Trichlorobenzene	<b>18.4</b>		µg/l		20.0	92	70-130			
1,1,1-Trichloroethane	<b>20.0</b>		µg/l		20.0	100	70-130			
1,1,2-Trichloroethane	<b>21.8</b>		µg/l		20.0	109	70-130			
Trichloroethene	<b>21.8</b>		µg/l		20.0	109	70-130			
Trichlorofluoromethane (Freon 11)	<b>22.2</b>		µg/l		20.0	111	70-130			
1,2,3-Trichloropropane	<b>21.6</b>		µg/l		20.0	108	70-130			
1,2,4-Trimethylbenzene	<b>20.5</b>		µg/l		20.0	102	70-130			
1,3,5-Trimethylbenzene	<b>22.8</b>		µg/l		20.0	114	70-130			
Vinyl chloride	<b>23.7</b>		µg/l		20.0	119	70-130			
m,p-Xylene	<b>19.2</b>		µg/l		20.0	96	70-130			
o-Xylene	<b>21.7</b>		µg/l		20.0	108	70-130			
Tetrahydrofuran	<b>19.6</b>		µg/l		20.0	98	70-130			
Ethyl ether	<b>19.8</b>		µg/l		20.0	99	70-130			
Tert-amyl methyl ether	<b>22.5</b>		µg/l		20.0	113	70-130			
Ethyl tert-butyl ether	<b>22.2</b>		µg/l		20.0	111	70-130			
Di-isopropyl ether	<b>20.2</b>		µg/l		20.0	101	70-130			

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416688 - SW846 5030 Water MS</b>										
<u>LCS (1416688-BS1)</u>										
Tert-Butanol / butyl alcohol	193		µg/l		200	97		70-130		
1,4-Dioxane	202		µg/l		200	101		70-130		
trans-1,4-Dichloro-2-butene	19.3		µg/l		20.0	96		70-130		
Ethanol	402		µg/l		400	100		70-130		
<u>Surrogate: 4-Bromofluorobenzene</u>										
	56.2		µg/l		50.0	112		70-130		
<u>Surrogate: Toluene-d8</u>										
	50.6		µg/l		50.0	101		70-130		
<u>Surrogate: 1,2-Dichloroethane-d4</u>										
	51.7		µg/l		50.0	103		70-130		
<u>Surrogate: Dibromofluoromethane</u>										
	50.4		µg/l		50.0	101		70-130		
<u>LCS Dup (1416688-BSD1)</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	20.2		µg/l		20.0	101		70-130	10	20
Acetone	16.5		µg/l		20.0	83		70-130	5	20
Acrylonitrile	19.5		µg/l		20.0	98		70-130	2	20
Benzene	19.5		µg/l		20.0	98		70-130	4	20
Bromobenzene	20.9		µg/l		20.0	105		70-130	4	20
Bromochloromethane	20.1		µg/l		20.0	100		70-130	2	20
Bromodichloromethane	21.3		µg/l		20.0	107		70-130	4	20
Bromoform	19.1		µg/l		20.0	96		70-130	3	20
Bromomethane	23.8		µg/l		20.0	119		70-130	4	20
2-Butanone (MEK)	19.5		µg/l		20.0	98		70-130	5	20
n-Butylbenzene	19.4		µg/l		20.0	97		70-130	8	20
sec-Butylbenzene	19.4		µg/l		20.0	97		70-130	8	20
tert-Butylbenzene	20.9		µg/l		20.0	105		70-130	8	20
Carbon disulfide	20.6		µg/l		20.0	103		70-130	6	20
Carbon tetrachloride	18.1		µg/l		20.0	91		70-130	9	20
Chlorobenzene	19.9		µg/l		20.0	99		70-130	4	20
Chloroethane	19.0		µg/l		20.0	95		70-130	4	20
Chloroform	20.3		µg/l		20.0	102		70-130	2	20
Chloromethane	19.7		µg/l		20.0	98		70-130	4	20
2-Chlorotoluene	20.5		µg/l		20.0	102		70-130	8	20
4-Chlorotoluene	19.9		µg/l		20.0	100		70-130	4	20
1,2-Dibromo-3-chloropropane	17.3		µg/l		20.0	86		70-130	0.7	20
Dibromochloromethane	20.5		µg/l		20.0	102		70-130	4	20
1,2-Dibromoethane (EDB)	21.3		µg/l		20.0	107		70-130	2	20
Dibromomethane	21.9		µg/l		20.0	109		70-130	1	20
1,2-Dichlorobenzene	19.3		µg/l		20.0	96		70-130	2	20
1,3-Dichlorobenzene	21.4		µg/l		20.0	107		70-130	2	20
1,4-Dichlorobenzene	17.4		µg/l		20.0	87		70-130	4	20
Dichlorodifluoromethane (Freon12)	19.9		µg/l		20.0	99		70-130	7	20
1,1-Dichloroethane	19.4		µg/l		20.0	97		70-130	3	20
1,2-Dichloroethane	21.7		µg/l		20.0	108		70-130	2	20
1,1-Dichloroethene	21.3		µg/l		20.0	106		70-130	5	20
cis-1,2-Dichloroethene	19.7		µg/l		20.0	98		70-130	3	20
trans-1,2-Dichloroethene	19.8		µg/l		20.0	99		70-130	5	20
1,2-Dichloropropane	18.9		µg/l		20.0	95		70-130	1	20
1,3-Dichloropropane	20.9		µg/l		20.0	105		70-130	0.4	20
2,2-Dichloropropane	22.8		µg/l		20.0	114		70-130	6	20
1,1-Dichloropropene	21.6		µg/l		20.0	108		70-130	7	20
cis-1,3-Dichloropropene	18.8		µg/l		20.0	94		70-130	5	20
trans-1,3-Dichloropropene	19.5		µg/l		20.0	98		70-130	0.5	20
Ethylbenzene	18.3		µg/l		20.0	91		70-130	6	20
Hexachlorobutadiene	21.0		µg/l		20.0	105		70-130	1	20

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### Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416688 - SW846 5030 Water MS</b>										
<u>LCS Dup (1416688-BSD1)</u>										
QM10										
<u>Prepared &amp; Analyzed: 18-Jul-14</u>										
2-Hexanone (MBK)	<b>19.2</b>		µg/l		20.0	96	70-130	6	20	
Isopropylbenzene	<b>20.0</b>		µg/l		20.0	100	70-130	6	20	
4-Isopropyltoluene	<b>17.6</b>		µg/l		20.0	88	70-130	8	20	
Methyl tert-butyl ether	<b>20.9</b>		µg/l		20.0	105	70-130	3	20	
4-Methyl-2-pentanone (MIBK)	<b>21.0</b>		µg/l		20.0	105	70-130	10	20	
Methylene chloride	<b>19.2</b>		µg/l		20.0	96	70-130	0.7	20	
Naphthalene	<b>16.7</b>		µg/l		20.0	83	70-130	6	20	
n-Propylbenzene	<b>22.1</b>		µg/l		20.0	110	70-130	7	20	
Styrene	<b>20.8</b>		µg/l		20.0	104	70-130	1	20	
1,1,1,2-Tetrachloroethane	<b>16.1</b>		µg/l		20.0	80	70-130	3	20	
1,1,2,2-Tetrachloroethane	<b>21.5</b>		µg/l		20.0	108	70-130	3	20	
Tetrachloroethene	<b>18.2</b>		µg/l		20.0	91	70-130	10	20	
Toluene	<b>21.2</b>		µg/l		20.0	106	70-130	0.3	20	
1,2,3-Trichlorobenzene	<b>17.7</b>		µg/l		20.0	88	70-130	2	20	
1,2,4-Trichlorobenzene	<b>16.7</b>		µg/l		20.0	83	70-130	3	20	
1,3,5-Trichlorobenzene	<b>17.6</b>		µg/l		20.0	88	70-130	4	20	
1,1,1-Trichloroethane	<b>18.7</b>		µg/l		20.0	93	70-130	7	20	
1,1,2-Trichloroethane	<b>21.7</b>		µg/l		20.0	108	70-130	0.3	20	
Trichloroethene	<b>20.6</b>		µg/l		20.0	103	70-130	6	20	
Trichlorofluoromethane (Freon 11)	<b>20.3</b>		µg/l		20.0	102	70-130	9	20	
1,2,3-Trichloropropane	<b>22.5</b>		µg/l		20.0	112	70-130	4	20	
1,2,4-Trimethylbenzene	<b>19.5</b>		µg/l		20.0	97	70-130	5	20	
1,3,5-Trimethylbenzene	<b>21.2</b>		µg/l		20.0	106	70-130	7	20	
Vinyl chloride	<b>23.1</b>		µg/l		20.0	115	70-130	3	20	
m,p-Xylene	<b>17.6</b>		µg/l		20.0	88	70-130	9	20	
o-Xylene	<b>20.6</b>		µg/l		20.0	103	70-130	5	20	
Tetrahydrofuran	<b>19.4</b>		µg/l		20.0	97	70-130	1	20	
Ethyl ether	<b>20.5</b>		µg/l		20.0	102	70-130	3	20	
Tert-amyl methyl ether	<b>21.9</b>		µg/l		20.0	109	70-130	3	20	
Ethyl tert-butyl ether	<b>21.5</b>		µg/l		20.0	108	70-130	3	20	
Di-isopropyl ether	<b>19.6</b>		µg/l		20.0	98	70-130	3	20	
Tert-Butanol / butyl alcohol	<b>204</b>		µg/l		200	102	70-130	5	20	
1,4-Dioxane	<b>210</b>		µg/l		200	105	70-130	4	20	
trans-1,4-Dichloro-2-butene	<b>19.5</b>		µg/l		20.0	98	70-130	1	20	
Ethanol	<b>440</b>		µg/l		400	110	70-130	9	20	
Surrogate: 4-Bromofluorobenzene	56.2		µg/l		50.0	112	70-130			
Surrogate: Toluene-d8	51.6		µg/l		50.0	103	70-130			
Surrogate: 1,2-Dichloroethane-d4	51.2		µg/l		50.0	102	70-130			
Surrogate: Dibromofluoromethane	50.6		µg/l		50.0	101	70-130			
<b>Batch 1416790 - SW846 5035A Soil (high level)</b>										
<u>Blank (1416790-BLK1)</u>										
<u>Prepared &amp; Analyzed: 21-Jul-14</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 50.0	D	µg/kg wet	50.0						
Acetone	< 500	D	µg/kg wet	500						
Acrylonitrile	< 50.0	D	µg/kg wet	50.0						
Benzene	< 50.0	D	µg/kg wet	50.0						
Bromobenzene	< 50.0	D	µg/kg wet	50.0						
Bromochloromethane	< 50.0	D	µg/kg wet	50.0						
Bromodichloromethane	< 50.0	D	µg/kg wet	50.0						
Bromoform	< 50.0	D	µg/kg wet	50.0						
Bromomethane	< 100	D	µg/kg wet	100						
2-Butanone (MEK)	< 500	D	µg/kg wet	500						

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### Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416790 - SW846 5035A Soil (high level)</b>										
<u>Blank (1416790-BLK1)</u>										
n-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
sec-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
tert-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
Carbon disulfide	< 100	D	µg/kg wet	100						
Carbon tetrachloride	< 50.0	D	µg/kg wet	50.0						
Chlorobenzene	< 50.0	D	µg/kg wet	50.0						
Chloroethane	< 100	D	µg/kg wet	100						
Chloroform	< 50.0	D	µg/kg wet	50.0						
Chloromethane	< 100	D	µg/kg wet	100						
2-Chlorotoluene	< 50.0	D	µg/kg wet	50.0						
4-Chlorotoluene	< 50.0	D	µg/kg wet	50.0						
1,2-Dibromo-3-chloropropane	< 100	D	µg/kg wet	100						
Dibromochloromethane	< 50.0	D	µg/kg wet	50.0						
1,2-Dibromoethane (EDB)	< 50.0	D	µg/kg wet	50.0						
Dibromomethane	< 50.0	D	µg/kg wet	50.0						
1,2-Dichlorobenzene	< 50.0	D	µg/kg wet	50.0						
1,3-Dichlorobenzene	< 50.0	D	µg/kg wet	50.0						
1,4-Dichlorobenzene	< 50.0	D	µg/kg wet	50.0						
Dichlorodifluoromethane (Freon12)	< 100	D	µg/kg wet	100						
1,1-Dichloroethane	< 50.0	D	µg/kg wet	50.0						
1,2-Dichloroethane	< 50.0	D	µg/kg wet	50.0						
1,1-Dichloroethene	< 50.0	D	µg/kg wet	50.0						
cis-1,2-Dichloroethene	< 50.0	D	µg/kg wet	50.0						
trans-1,2-Dichloroethene	< 50.0	D	µg/kg wet	50.0						
1,2-Dichloropropane	< 50.0	D	µg/kg wet	50.0						
1,3-Dichloropropane	< 50.0	D	µg/kg wet	50.0						
2,2-Dichloropropane	< 50.0	D	µg/kg wet	50.0						
1,1-Dichloropropene	< 50.0	D	µg/kg wet	50.0						
cis-1,3-Dichloropropene	< 50.0	D	µg/kg wet	50.0						
trans-1,3-Dichloropropene	< 50.0	D	µg/kg wet	50.0						
Ethylbenzene	< 50.0	D	µg/kg wet	50.0						
Hexachlorobutadiene	< 50.0	D	µg/kg wet	50.0						
2-Hexanone (MBK)	< 500	D	µg/kg wet	500						
Isopropylbenzene	< 50.0	D	µg/kg wet	50.0						
4-Isopropyltoluene	< 50.0	D	µg/kg wet	50.0						
Methyl tert-butyl ether	< 50.0	D	µg/kg wet	50.0						
4-Methyl-2-pentanone (MIBK)	< 500	D	µg/kg wet	500						
Methylene chloride	< 100	D	µg/kg wet	100						
Naphthalene	< 50.0	D	µg/kg wet	50.0						
n-Propylbenzene	< 50.0	D	µg/kg wet	50.0						
Styrene	< 50.0	D	µg/kg wet	50.0						
1,1,1,2-Tetrachloroethane	< 50.0	D	µg/kg wet	50.0						
1,1,2,2-Tetrachloroethane	< 50.0	D	µg/kg wet	50.0						
Tetrachloroethene	< 50.0	D	µg/kg wet	50.0						
Toluene	< 50.0	D	µg/kg wet	50.0						
1,2,3-Trichlorobenzene	< 50.0	D	µg/kg wet	50.0						
1,2,4-Trichlorobenzene	< 50.0	D	µg/kg wet	50.0						
1,3,5-Trichlorobenzene	< 50.0	D	µg/kg wet	50.0						
1,1,1-Trichloroethane	< 50.0	D	µg/kg wet	50.0						
1,1,2-Trichloroethane	< 50.0	D	µg/kg wet	50.0						
Trichloroethene	< 50.0	D	µg/kg wet	50.0						
Trichlorofluoromethane (Freon 11)	< 50.0	D	µg/kg wet	50.0						

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416790 - SW846 5035A Soil (high level)</b>										
<u>Blank (1416790-BLK1)</u>										
1,2,3-Trichloropropane	< 50.0	D	µg/kg wet	50.0						
1,2,4-Trimethylbenzene	< 50.0	D	µg/kg wet	50.0						
1,3,5-Trimethylbenzene	< 50.0	D	µg/kg wet	50.0						
Vinyl chloride	< 50.0	D	µg/kg wet	50.0						
m,p-Xylene	< 100	D	µg/kg wet	100						
o-Xylene	< 50.0	D	µg/kg wet	50.0						
Tetrahydrofuran	< 100	D	µg/kg wet	100						
Ethyl ether	< 50.0	D	µg/kg wet	50.0						
Tert-amyl methyl ether	< 50.0	D	µg/kg wet	50.0						
Ethyl tert-butyl ether	< 50.0	D	µg/kg wet	50.0						
Di-isopropyl ether	< 50.0	D	µg/kg wet	50.0						
Tert-Butanol / butyl alcohol	< 500	D	µg/kg wet	500						
1,4-Dioxane	< 1000	D	µg/kg wet	1000						
trans-1,4-Dichloro-2-butene	< 250	D	µg/kg wet	250						
Ethanol	< 20000	D	µg/kg wet	20000						
<u>Surrogate: 4-Bromofluorobenzene</u>										
Surrogate: Toluene-d8	30.3		µg/kg wet		30.0		101	70-130		
Surrogate: 1,2-Dichloroethane-d4	29.9		µg/kg wet		30.0		100	70-130		
Surrogate: Dibromofluoromethane	26.1		µg/kg wet		30.0		87	70-130		
Surrogate: 4-Bromofluorobenzene	29.1		µg/kg wet		30.0		97	70-130		
<u>LCS (1416790-BS1)</u>										
Prepared & Analyzed: 21-Jul-14										
1,1,2-Trichlorotrifluoroethane (Freon 113)	18.0	D	µg/kg wet		20.0		90	70-130		
Acetone	13.1	D	µg/kg wet		20.0		65	70-130		
Acrylonitrile	18.6	D	µg/kg wet		20.0		93	70-130		
Benzene	18.7	D	µg/kg wet		20.0		94	70-130		
Bromobenzene	22.2	D	µg/kg wet		20.0		111	70-130		
Bromoform	20.0	D	µg/kg wet		20.0		100	70-130		
Bromoform	16.4	D	µg/kg wet		20.0		82	70-130		
Bromoform	15.9	D	µg/kg wet		20.0		80	70-130		
Bromomethane	16.8	D	µg/kg wet		20.0		84	70-130		
2-Butanone (MEK)	16.4	D	µg/kg wet		20.0		82	70-130		
n-Butylbenzene	17.4	D	µg/kg wet		20.0		87	70-130		
sec-Butylbenzene	22.2	D	µg/kg wet		20.0		111	70-130		
tert-Butylbenzene	22.5	D	µg/kg wet		20.0		113	70-130		
Carbon disulfide	18.4	D	µg/kg wet		20.0		92	70-130		
Carbon tetrachloride	14.1	D	µg/kg wet		20.0		71	70-130		
Chlorobenzene	21.2	D	µg/kg wet		20.0		106	70-130		
Chloroethane	17.3	D	µg/kg wet		20.0		86	70-130		
Chloroform	17.7	D	µg/kg wet		20.0		89	70-130		
Chloromethane	20.3	D	µg/kg wet		20.0		102	70-130		
2-Chlorotoluene	19.7	D	µg/kg wet		20.0		98	70-130		
4-Chlorotoluene	19.7	D	µg/kg wet		20.0		99	70-130		
1,2-Dibromo-3-chloropropane	12.3	QC2, D	µg/kg wet		20.0		62	70-130		
Dibromochloromethane	16.4	D	µg/kg wet		20.0		82	70-130		
1,2-Dibromoethane (EDB)	18.7	D	µg/kg wet		20.0		93	70-130		
Dibromomethane	17.7	D	µg/kg wet		20.0		89	70-130		
1,2-Dichlorobenzene	19.2	D	µg/kg wet		20.0		96	70-130		
1,3-Dichlorobenzene	22.4	D	µg/kg wet		20.0		112	70-130		
1,4-Dichlorobenzene	18.9	D	µg/kg wet		20.0		94	70-130		
Dichlorodifluoromethane (Freon12)	16.8	D	µg/kg wet		20.0		84	70-130		
1,1-Dichloroethane	18.8	D	µg/kg wet		20.0		94	70-130		
1,2-Dichloroethane	17.3	D	µg/kg wet		20.0		87	70-130		

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416790 - SW846 5035A Soil (high level)</b>										
<u>LCS (1416790-BS1)</u>										
<u>Prepared &amp; Analyzed: 21-Jul-14</u>										
1,1-Dichloroethene	17.8	D	µg/kg wet		20.0	89	70-130			
cis-1,2-Dichloroethene	19.3	D	µg/kg wet		20.0	97	70-130			
trans-1,2-Dichloroethene	18.5	D	µg/kg wet		20.0	93	70-130			
1,2-Dichloropropane	19.0	D	µg/kg wet		20.0	95	70-130			
1,3-Dichloropropane	18.3	D	µg/kg wet		20.0	91	70-130			
2,2-Dichloropropane	16.2	D	µg/kg wet		20.0	81	70-130			
1,1-Dichloropropene	17.4	D	µg/kg wet		20.0	87	70-130			
cis-1,3-Dichloropropene	16.4	D	µg/kg wet		20.0	82	70-130			
trans-1,3-Dichloropropene	15.8	D	µg/kg wet		20.0	79	70-130			
Ethylbenzene	20.3	D	µg/kg wet		20.0	102	70-130			
Hexachlorobutadiene	20.5	D	µg/kg wet		20.0	103	70-130			
2-Hexanone (MBK)	15.6	D	µg/kg wet		20.0	78	70-130			
Isopropylbenzene	21.4	D	µg/kg wet		20.0	107	70-130			
4-Isopropyltoluene	19.0	D	µg/kg wet		20.0	95	70-130			
Methyl tert-butyl ether	16.3	D	µg/kg wet		20.0	82	70-130			
4-Methyl-2-pentanone (MIBK)	17.2	D	µg/kg wet		20.0	86	70-130			
Methylene chloride	19.3	D	µg/kg wet		20.0	96	70-130			
Naphthalene	18.4	D	µg/kg wet		20.0	92	70-130			
n-Propylbenzene	20.5	D	µg/kg wet		20.0	103	70-130			
Styrene	20.9	D	µg/kg wet		20.0	105	70-130			
1,1,1,2-Tetrachloroethane	18.2	D	µg/kg wet		20.0	91	70-130			
1,1,2,2-Tetrachloroethane	18.2	D	µg/kg wet		20.0	91	70-130			
Tetrachloroethene	20.7	D	µg/kg wet		20.0	104	70-130			
Toluene	19.6	D	µg/kg wet		20.0	98	70-130			
1,2,3-Trichlorobenzene	19.6	D	µg/kg wet		20.0	98	70-130			
1,2,4-Trichlorobenzene	18.8	D	µg/kg wet		20.0	94	70-130			
1,3,5-Trichlorobenzene	19.8	D	µg/kg wet		20.0	99	70-130			
1,1,1-Trichloroethane	17.7	D	µg/kg wet		20.0	88	70-130			
1,1,2-Trichloroethane	18.1	D	µg/kg wet		20.0	90	70-130			
Trichloroethene	19.3	D	µg/kg wet		20.0	97	70-130			
Trichlorofluoromethane (Freon 11)	17.4	D	µg/kg wet		20.0	87	70-130			
1,2,3-Trichloropropane	18.3	D	µg/kg wet		20.0	91	70-130			
1,2,4-Trimethylbenzene	20.6	D	µg/kg wet		20.0	103	70-130			
1,3,5-Trimethylbenzene	20.6	D	µg/kg wet		20.0	103	70-130			
Vinyl chloride	18.0	D	µg/kg wet		20.0	90	70-130			
m,p-Xylene	21.5	D	µg/kg wet		20.0	108	70-130			
o-Xylene	21.6	D	µg/kg wet		20.0	108	70-130			
Tetrahydrofuran	16.7	D	µg/kg wet		20.0	84	70-130			
Ethyl ether	17.8	D	µg/kg wet		20.0	89	70-130			
Tert-amyl methyl ether	16.8	D	µg/kg wet		20.0	84	70-130			
Ethyl tert-butyl ether	18.2	D	µg/kg wet		20.0	91	70-130			
Di-isopropyl ether	19.2	D	µg/kg wet		20.0	96	70-130			
Tert-Butanol / butyl alcohol	142	D	µg/kg wet		200	71	70-130			
1,4-Dioxane	161	D	µg/kg wet		200	81	70-130			
trans-1,4-Dichloro-2-butene	15.5	D	µg/kg wet		20.0	78	70-130			
Ethanol	328	D	µg/kg wet		400	82	70-130			
Surrogate: 4-Bromofluorobenzene	30.1		µg/kg wet		30.0	100	70-130			
Surrogate: Toluene-d8	29.6		µg/kg wet		30.0	98	70-130			
Surrogate: 1,2-Dichloroethane-d4	25.3		µg/kg wet		30.0	84	70-130			
Surrogate: Dibromofluoromethane	29.1		µg/kg wet		30.0	97	70-130			
<u>LCS Dup (1416790-BS1)</u>										
<u>Prepared &amp; Analyzed: 21-Jul-14</u>										

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416790 - SW846 5035A Soil (high level)</b>										
<u>LCS Dup (1416790-BSD1)</u>										
<i>Prepared &amp; Analyzed: 21-Jul-14</i>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	<b>19.5</b>	D	µg/kg wet		20.0	97	70-130	8	30	
Acetone	<b>13.6</b>	D	µg/kg wet		20.0	68	70-130	4	30	
Acrylonitrile	<b>18.1</b>	D	µg/kg wet		20.0	90	70-130	3	30	
Benzene	<b>18.8</b>	D	µg/kg wet		20.0	94	70-130	0.5	30	
Bromobenzene	<b>22.1</b>	D	µg/kg wet		20.0	110	70-130	0.6	30	
Bromoform	<b>21.0</b>	D	µg/kg wet		20.0	105	70-130	5	30	
Bromochloromethane	<b>16.6</b>	D	µg/kg wet		20.0	83	70-130	1	30	
Bromodichloromethane	<b>15.7</b>	D	µg/kg wet		20.0	78	70-130	1	30	
Bromoform	<b>15.9</b>	D	µg/kg wet		20.0	80	70-130	5	30	
Bromomethane	<b>16.3</b>	D	µg/kg wet		20.0	81	70-130	0.9	30	
n-Butylbenzene	<b>17.4</b>	D	µg/kg wet		20.0	87	70-130	0.4	30	
sec-Butylbenzene	<b>22.1</b>	D	µg/kg wet		20.0	111	70-130	0.1	30	
tert-Butylbenzene	<b>22.3</b>	D	µg/kg wet		20.0	112	70-130	0.8	30	
Carbon disulfide	<b>18.6</b>	D	µg/kg wet		20.0	93	70-130	1	30	
Carbon tetrachloride	<b>14.3</b>	D	µg/kg wet		20.0	71	70-130	1	30	
Chlorobenzene	<b>21.4</b>	D	µg/kg wet		20.0	107	70-130	1	30	
Chloroethane	<b>17.6</b>	D	µg/kg wet		20.0	88	70-130	2	30	
Chloroform	<b>17.4</b>	D	µg/kg wet		20.0	87	70-130	2	30	
Chloromethane	<b>19.8</b>	D	µg/kg wet		20.0	99	70-130	2	30	
2-Chlorotoluene	<b>19.7</b>	D	µg/kg wet		20.0	99	70-130	0.4	30	
4-Chlorotoluene	<b>19.6</b>	D	µg/kg wet		20.0	98	70-130	0.5	30	
1,2-Dibromo-3-chloropropane	<b>11.8</b>	QC2, D	µg/kg wet		20.0	59	70-130	4	30	
Dibromochloromethane	<b>16.4</b>	D	µg/kg wet		20.0	82	70-130	0	30	
1,2-Dibromoethane (EDB)	<b>18.2</b>	D	µg/kg wet		20.0	91	70-130	3	30	
Dibromomethane	<b>17.6</b>	D	µg/kg wet		20.0	88	70-130	0.5	30	
1,2-Dichlorobenzene	<b>19.4</b>	D	µg/kg wet		20.0	97	70-130	0.6	30	
1,3-Dichlorobenzene	<b>22.0</b>	D	µg/kg wet		20.0	110	70-130	2	30	
1,4-Dichlorobenzene	<b>19.0</b>	D	µg/kg wet		20.0	95	70-130	0.4	30	
Dichlorodifluoromethane (Freon12)	<b>18.0</b>	D	µg/kg wet		20.0	90	70-130	7	30	
1,1-Dichloroethane	<b>18.6</b>	D	µg/kg wet		20.0	93	70-130	0.9	30	
1,2-Dichloroethane	<b>17.4</b>	D	µg/kg wet		20.0	87	70-130	0.3	30	
1,1-Dichloroethene	<b>18.8</b>	D	µg/kg wet		20.0	94	70-130	6	30	
cis-1,2-Dichloroethene	<b>19.4</b>	D	µg/kg wet		20.0	97	70-130	0.5	30	
trans-1,2-Dichloroethene	<b>18.8</b>	D	µg/kg wet		20.0	94	70-130	2	30	
1,2-Dichloropropane	<b>18.6</b>	D	µg/kg wet		20.0	93	70-130	2	30	
1,3-Dichloropropane	<b>18.4</b>	D	µg/kg wet		20.0	92	70-130	0.5	30	
2,2-Dichloropropane	<b>16.5</b>	D	µg/kg wet		20.0	82	70-130	2	30	
1,1-Dichloropropene	<b>17.6</b>	D	µg/kg wet		20.0	88	70-130	1	30	
cis-1,3-Dichloropropene	<b>16.4</b>	D	µg/kg wet		20.0	82	70-130	0.2	30	
trans-1,3-Dichloropropene	<b>15.7</b>	D	µg/kg wet		20.0	78	70-130	0.4	30	
Ethylbenzene	<b>20.0</b>	D	µg/kg wet		20.0	100	70-130	2	30	
Hexachlorobutadiene	<b>20.1</b>	D	µg/kg wet		20.0	100	70-130	2	30	
2-Hexanone (MBK)	<b>15.6</b>	D	µg/kg wet		20.0	78	70-130	0.3	30	
Isopropylbenzene	<b>21.3</b>	D	µg/kg wet		20.0	107	70-130	0.7	30	
4-Isopropyltoluene	<b>19.2</b>	D	µg/kg wet		20.0	96	70-130	1	30	
Methyl tert-butyl ether	<b>16.2</b>	D	µg/kg wet		20.0	81	70-130	0.6	30	
4-Methyl-2-pentanone (MIBK)	<b>17.0</b>	D	µg/kg wet		20.0	85	70-130	1	30	
Methylene chloride	<b>19.5</b>	D	µg/kg wet		20.0	97	70-130	0.9	30	
Naphthalene	<b>18.8</b>	D	µg/kg wet		20.0	94	70-130	2	30	
n-Propylbenzene	<b>20.5</b>	D	µg/kg wet		20.0	102	70-130	0.3	30	
Styrene	<b>20.7</b>	D	µg/kg wet		20.0	104	70-130	1	30	
1,1,1,2-Tetrachloroethane	<b>18.1</b>	D	µg/kg wet		20.0	91	70-130	0.6	30	

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416790 - SW846 5035A Soil (high level)</b>										
<u>LCS Dup (1416790-BSD1)</u>										
							Prepared & Analyzed: 21-Jul-14			
1,1,2,2-Tetrachloroethane	17.8	D	µg/kg wet		20.0	89	70-130	2	30	
Tetrachloroethene	21.4	D	µg/kg wet		20.0	107	70-130	3	30	
Toluene	19.8	D	µg/kg wet		20.0	99	70-130	1	30	
1,2,3-Trichlorobenzene	19.7	D	µg/kg wet		20.0	98	70-130	0.4	30	
1,2,4-Trichlorobenzene	18.9	D	µg/kg wet		20.0	95	70-130	0.8	30	
1,3,5-Trichlorobenzene	19.9	D	µg/kg wet		20.0	100	70-130	0.5	30	
1,1,1-Trichloroethane	17.8	D	µg/kg wet		20.0	89	70-130	0.6	30	
1,1,2-Trichloroethane	17.8	D	µg/kg wet		20.0	89	70-130	2	30	
Trichloroethene	19.0	D	µg/kg wet		20.0	95	70-130	2	30	
Trichlorofluoromethane (Freon 11)	18.4	D	µg/kg wet		20.0	92	70-130	5	30	
1,2,3-Trichloropropane	17.7	D	µg/kg wet		20.0	88	70-130	3	30	
1,2,4-Trimethylbenzene	20.4	D	µg/kg wet		20.0	102	70-130	1	30	
1,3,5-Trimethylbenzene	20.8	D	µg/kg wet		20.0	104	70-130	0.8	30	
Vinyl chloride	17.5	D	µg/kg wet		20.0	88	70-130	3	30	
m,p-Xylene	21.4	D	µg/kg wet		20.0	107	70-130	0.5	30	
o-Xylene	21.2	D	µg/kg wet		20.0	106	70-130	2	30	
Tetrahydrofuran	16.9	D	µg/kg wet		20.0	84	70-130	0.8	30	
Ethyl ether	17.7	D	µg/kg wet		20.0	88	70-130	1	30	
Tert-amyl methyl ether	16.6	D	µg/kg wet		20.0	83	70-130	1	30	
Ethyl tert-butyl ether	18.1	D	µg/kg wet		20.0	90	70-130	0.6	30	
Di-isopropyl ether	19.0	D	µg/kg wet		20.0	95	70-130	0.7	30	
Tert-Butanol / butyl alcohol	140	D	µg/kg wet		200	70	70-130	2	30	
1,4-Dioxane	148	D	µg/kg wet		200	74	70-130	9	30	
trans-1,4-Dichloro-2-butene	15.1	D	µg/kg wet		20.0	76	70-130	3	30	
Ethanol	330	D	µg/kg wet		400	82	70-130	0.5	30	
Surrogate: 4-Bromofluorobenzene	31.0		µg/kg wet		30.0	103	70-130			
Surrogate: Toluene-d8	29.9		µg/kg wet		30.0	100	70-130			
Surrogate: 1,2-Dichloroethane-d4	25.2		µg/kg wet		30.0	84	70-130			
Surrogate: Dibromofluoromethane	29.1		µg/kg wet		30.0	97	70-130			
<u>Matrix Spike (1416790-MS1)</u>										
							Source: SB92975-04 Prepared & Analyzed: 21-Jul-14			
1,1,2-Trichlorotrifluoroethane (Freon 113)	26.3	QM7, D	µg/kg dry		20.0	BRL	131	70-130		
Acetone	15.0	D	µg/kg dry		20.0	BRL	75	70-130		
Acrylonitrile	19.8	D	µg/kg dry		20.0	BRL	99	70-130		
Benzene	23.9	D	µg/kg dry		20.0	0.4	118	70-130		
Bromobenzene	27.2	QM7, D	µg/kg dry		20.0	BRL	136	70-130		
Bromoform	24.1	D	µg/kg dry		20.0	BRL	121	70-130		
Bromochloromethane	17.0	D	µg/kg dry		20.0	BRL	85	70-130		
Bromodichloromethane	13.5	QM7, D	µg/kg dry		20.0	BRL	68	70-130		
Bromoform	16.1	D	µg/kg dry		20.0	BRL	80	70-130		
2-Butanone (MEK)	18.4	D	µg/kg dry		20.0	BRL	92	70-130		
n-Butylbenzene	23.7	D	µg/kg dry		20.0	BRL	119	70-130		
sec-Butylbenzene	30.1	QM7, D	µg/kg dry		20.0	BRL	151	70-130		
tert-Butylbenzene	30.1	QM7, D	µg/kg dry		20.0	BRL	150	70-130		
Carbon disulfide	22.0	D	µg/kg dry		20.0	BRL	110	70-130		
Carbon tetrachloride	15.3	D	µg/kg dry		20.0	BRL	77	70-130		
Chlorobenzene	26.2	QM7, D	µg/kg dry		20.0	BRL	131	70-130		
Chloroethane	21.9	D	µg/kg dry		20.0	BRL	109	70-130		
Chloroform	21.7	D	µg/kg dry		20.0	BRL	108	70-130		
Chloromethane	27.3	QM7, D	µg/kg dry		20.0	BRL	136	70-130		
2-Chlorotoluene	25.6	D	µg/kg dry		20.0	BRL	128	70-130		
4-Chlorotoluene	26.1	D	µg/kg dry		20.0	BRL	130	70-130		

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416790 - SW846 5035A Soil (high level)</b>										
<u>Matrix Spike (1416790-MS1)</u>										
<b>Source: SB92975-04</b>								Prepared & Analyzed: 21-Jul-14		
1,2-Dibromo-3-chloropropane	<b>10.5</b>	QC2, D	µg/kg dry		20.0	BRL	53	70-130		
Dibromochloromethane	<b>15.6</b>	D	µg/kg dry		20.0	BRL	78	70-130		
1,2-Dibromoethane (EDB)	<b>20.8</b>	D	µg/kg dry		20.0	BRL	104	70-130		
Dibromomethane	<b>19.8</b>	D	µg/kg dry		20.0	BRL	99	70-130		
1,2-Dichlorobenzene	<b>22.7</b>	D	µg/kg dry		20.0	BRL	113	70-130		
1,3-Dichlorobenzene	<b>29.2</b>	QM7, D	µg/kg dry		20.0	BRL	146	70-130		
1,4-Dichlorobenzene	<b>23.0</b>	D	µg/kg dry		20.0	BRL	115	70-130		
Dichlorodifluoromethane (Freon12)	<b>22.8</b>	D	µg/kg dry		20.0	BRL	114	70-130		
1,1-Dichloroethane	<b>23.5</b>	D	µg/kg dry		20.0	BRL	118	70-130		
1,2-Dichloroethane	<b>20.7</b>	D	µg/kg dry		20.0	BRL	103	70-130		
1,1-Dichloroethene	<b>25.2</b>	D	µg/kg dry		20.0	BRL	126	70-130		
cis-1,2-Dichloroethene	<b>24.0</b>	D	µg/kg dry		20.0	BRL	120	70-130		
trans-1,2-Dichloroethene	<b>24.5</b>	D	µg/kg dry		20.0	BRL	122	70-130		
1,2-Dichloropropane	<b>23.5</b>	D	µg/kg dry		20.0	BRL	118	70-130		
1,3-Dichloropropane	<b>21.7</b>	D	µg/kg dry		20.0	BRL	108	70-130		
2,2-Dichloropropane	<b>20.9</b>	D	µg/kg dry		20.0	BRL	105	70-130		
1,1-Dichloropropene	<b>23.3</b>	D	µg/kg dry		20.0	BRL	116	70-130		
cis-1,3-Dichloropropene	<b>18.2</b>	D	µg/kg dry		20.0	BRL	91	70-130		
trans-1,3-Dichloropropene	<b>17.7</b>	D	µg/kg dry		20.0	BRL	89	70-130		
Ethylbenzene	<b>25.7</b>	D	µg/kg dry		20.0	0.7	125	70-130		
Hexachlorobutadiene	<b>26.9</b>	QM7, D	µg/kg dry		20.0	BRL	135	70-130		
2-Hexanone (MBK)	<b>18.1</b>	D	µg/kg dry		20.0	BRL	90	70-130		
Isopropylbenzene	<b>27.7</b>	QM7, D	µg/kg dry		20.0	BRL	139	70-130		
4-Isopropyltoluene	<b>24.7</b>	D	µg/kg dry		20.0	BRL	123	70-130		
Methyl tert-butyl ether	<b>18.8</b>	D	µg/kg dry		20.0	BRL	94	70-130		
4-Methyl-2-pentanone (MIBK)	<b>19.0</b>	D	µg/kg dry		20.0	BRL	95	70-130		
Methylene chloride	<b>22.9</b>	D	µg/kg dry		20.0	BRL	114	70-130		
Naphthalene	<b>19.8</b>	D	µg/kg dry		20.0	1.2	93	70-130		
n-Propylbenzene	<b>27.9</b>	QM7, D	µg/kg dry		20.0	BRL	139	70-130		
Styrene	<b>26.0</b>	D	µg/kg dry		20.0	BRL	130	70-130		
1,1,1,2-Tetrachloroethane	<b>19.5</b>	D	µg/kg dry		20.0	BRL	97	70-130		
1,1,2,2-Tetrachloroethane	<b>21.0</b>	D	µg/kg dry		20.0	BRL	105	70-130		
Tetrachloroethene	<b>28.2</b>	QM7, D	µg/kg dry		20.0	BRL	141	70-130		
Toluene	<b>24.7</b>	D	µg/kg dry		20.0	BRL	124	70-130		
1,2,3-Trichlorobenzene	<b>22.1</b>	D	µg/kg dry		20.0	BRL	110	70-130		
1,2,4-Trichlorobenzene	<b>22.8</b>	D	µg/kg dry		20.0	BRL	114	70-130		
1,3,5-Trichlorobenzene	<b>24.8</b>	D	µg/kg dry		20.0	BRL	124	70-130		
1,1,1-Trichloroethane	<b>21.2</b>	D	µg/kg dry		20.0	BRL	106	70-130		
1,1,2-Trichloroethane	<b>20.4</b>	D	µg/kg dry		20.0	BRL	102	70-130		
Trichloroethene	<b>25.1</b>	D	µg/kg dry		20.0	BRL	125	70-130		
Trichlorofluoromethane (Freon 11)	<b>23.3</b>	D	µg/kg dry		20.0	BRL	117	70-130		
1,2,3-Trichloropropane	<b>20.3</b>	D	µg/kg dry		20.0	BRL	101	70-130		
1,2,4-Trimethylbenzene	<b>28.9</b>	D	µg/kg dry		20.0	2.9	130	70-130		
1,3,5-Trimethylbenzene	<b>28.2</b>	QM7, D	µg/kg dry		20.0	1.0	136	70-130		
Vinyl chloride	<b>22.7</b>	D	µg/kg dry		20.0	BRL	113	70-130		
m,p-Xylene	<b>27.6</b>	QM7, D	µg/kg dry		20.0	1.3	132	70-130		
o-Xylene	<b>27.1</b>	QM7, D	µg/kg dry		20.0	0.5	133	70-130		
Tetrahydrofuran	<b>20.2</b>	D	µg/kg dry		20.0	BRL	101	70-130		
Ethyl ether	<b>21.2</b>	D	µg/kg dry		20.0	BRL	106	70-130		
Tert-amyl methyl ether	<b>19.2</b>	D	µg/kg dry		20.0	BRL	96	70-130		
Ethyl tert-butyl ether	<b>21.5</b>	D	µg/kg dry		20.0	BRL	108	70-130		
Di-isopropyl ether	<b>22.8</b>	D	µg/kg dry		20.0	BRL	114	70-130		

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	
<b>Batch 1416790 - SW846 5035A Soil (high level)</b>											
<b>Matrix Spike (1416790-MS1)</b>											
					<b>Source: SB92975-04</b>	<b>Prepared &amp; Analyzed: 21-Jul-14</b>					
Tert-Butanol / butyl alcohol	172	D	µg/kg dry		200	BRL	86	70-130			
1,4-Dioxane	195	D	µg/kg dry		200	BRL	98	70-130			
trans-1,4-Dichloro-2-butene	16.7	D	µg/kg dry		20.0	BRL	84	70-130			
Ethanol	379	D	µg/kg dry		400	BRL	95	70-130			
Surrogate: 4-Bromofluorobenzene	32.6		µg/kg dry		30.0		109	70-130			
Surrogate: Toluene-d8	30.0		µg/kg dry		30.0		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	26.4		µg/kg dry		30.0		88	70-130			
Surrogate: Dibromofluoromethane	29.1		µg/kg dry		30.0		97	70-130			
<b>Matrix Spike Dup (1416790-MSD1)</b>											
					<b>Source: SB92975-04</b>	<b>Prepared &amp; Analyzed: 21-Jul-14</b>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	26.2	QM7, D	µg/kg dry		20.0	BRL	131	70-130	0.3	30	
Acetone	16.5	D	µg/kg dry		20.0	BRL	83	70-130	10	30	
Acrylonitrile	20.4	D	µg/kg dry		20.0	BRL	102	70-130	3	30	
Benzene	23.8	D	µg/kg dry		20.0	0.4	117	70-130	0.6	30	
Bromobenzene	27.6	QM7, D	µg/kg dry		20.0	BRL	138	70-130	2	30	
Bromochloromethane	23.0	D	µg/kg dry		20.0	BRL	115	70-130	5	30	
Bromodichloromethane	17.2	D	µg/kg dry		20.0	BRL	86	70-130	2	30	
Bromoform	14.2	D	µg/kg dry		20.0	BRL	71	70-130	5	30	
Bromomethane	16.4	D	µg/kg dry		20.0	BRL	82	70-130	2	30	
2-Butanone (MEK)	16.9	D	µg/kg dry		20.0	BRL	84	70-130	9	30	
n-Butylbenzene	24.1	D	µg/kg dry		20.0	BRL	121	70-130	2	30	
sec-Butylbenzene	30.4	QM7, D	µg/kg dry		20.0	BRL	152	70-130	0.7	30	
tert-Butylbenzene	30.3	QM7, D	µg/kg dry		20.0	BRL	152	70-130	0.9	30	
Carbon disulfide	22.1	D	µg/kg dry		20.0	BRL	111	70-130	0.6	30	
Carbon tetrachloride	16.1	D	µg/kg dry		20.0	BRL	80	70-130	5	30	
Chlorobenzene	26.1	D	µg/kg dry		20.0	BRL	130	70-130	0.7	30	
Chloroethane	22.0	D	µg/kg dry		20.0	BRL	110	70-130	0.8	30	
Chloroform	21.3	D	µg/kg dry		20.0	BRL	106	70-130	2	30	
Chloromethane	27.4	QM7, D	µg/kg dry		20.0	BRL	137	70-130	0.3	30	
2-Chlorotoluene	25.9	D	µg/kg dry		20.0	BRL	130	70-130	1	30	
4-Chlorotoluene	26.6	QM7, D	µg/kg dry		20.0	BRL	133	70-130	2	30	
1,2-Dibromo-3-chloropropane	11.7	QC2, D	µg/kg dry		20.0	BRL	58	70-130	10	30	
Dibromochloromethane	16.2	D	µg/kg dry		20.0	BRL	81	70-130	4	30	
1,2-Dibromoethane (EDB)	21.3	D	µg/kg dry		20.0	BRL	106	70-130	2	30	
Dibromomethane	20.4	D	µg/kg dry		20.0	BRL	102	70-130	3	30	
1,2-Dichlorobenzene	23.2	D	µg/kg dry		20.0	BRL	116	70-130	2	30	
1,3-Dichlorobenzene	29.6	QM7, D	µg/kg dry		20.0	BRL	148	70-130	1	30	
1,4-Dichlorobenzene	23.7	D	µg/kg dry		20.0	BRL	118	70-130	3	30	
Dichlorodifluoromethane (Freon12)	23.5	D	µg/kg dry		20.0	BRL	117	70-130	3	30	
1,1-Dichloroethane	23.5	D	µg/kg dry		20.0	BRL	118	70-130	0.1	30	
1,2-Dichloroethane	20.5	D	µg/kg dry		20.0	BRL	103	70-130	0.7	30	
1,1-Dichloroethene	25.8	D	µg/kg dry		20.0	BRL	129	70-130	2	30	
cis-1,2-Dichloroethene	23.8	D	µg/kg dry		20.0	BRL	119	70-130	0.7	30	
trans-1,2-Dichloroethene	24.7	D	µg/kg dry		20.0	BRL	123	70-130	0.7	30	
1,2-Dichloropropane	22.6	D	µg/kg dry		20.0	BRL	113	70-130	4	30	
1,3-Dichloropropane	21.9	D	µg/kg dry		20.0	BRL	110	70-130	1	30	
2,2-Dichloropropane	20.4	D	µg/kg dry		20.0	BRL	102	70-130	3	30	
1,1-Dichloropropene	22.9	D	µg/kg dry		20.0	BRL	115	70-130	1	30	
cis-1,3-Dichloropropene	18.9	D	µg/kg dry		20.0	BRL	94	70-130	4	30	
trans-1,3-Dichloropropene	18.3	D	µg/kg dry		20.0	BRL	91	70-130	3	30	
Ethylbenzene	25.8	D	µg/kg dry		20.0	0.7	125	70-130	0.1	30	
Hexachlorobutadiene	27.6	QM7, D	µg/kg dry		20.0	BRL	138	70-130	2	30	

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416790 - SW846 5035A Soil (high level)</b>										
<u>Matrix Spike Dup (1416790-MSD1)</u>										
<u>Source: SB92975-04</u>								Prepared & Analyzed: 21-Jul-14		
2-Hexanone (MBK)	18.8	D	µg/kg dry		20.0	BRL	94	70-130	4	30
Isopropylbenzene	27.7	QM7, D	µg/kg dry		20.0	BRL	139	70-130	0.04	30
4-Isopropyltoluene	25.0	D	µg/kg dry		20.0	BRL	125	70-130	1	30
Methyl tert-butyl ether	19.0	D	µg/kg dry		20.0	BRL	95	70-130	0.7	30
4-Methyl-2-pentanone (MIBK)	20.1	D	µg/kg dry		20.0	BRL	100	70-130	6	30
Methylene chloride	23.6	D	µg/kg dry		20.0	BRL	118	70-130	3	30
Naphthalene	21.6	D	µg/kg dry		20.0	1.2	102	70-130	9	30
n-Propylbenzene	27.5	QM7, D	µg/kg dry		20.0	BRL	138	70-130	1	30
Styrene	26.4	QM7, D	µg/kg dry		20.0	BRL	132	70-130	2	30
1,1,1,2-Tetrachloroethane	20.3	D	µg/kg dry		20.0	BRL	102	70-130	4	30
1,1,2,2-Tetrachloroethane	21.2	D	µg/kg dry		20.0	BRL	106	70-130	0.7	30
Tetrachloroethene	28.3	QM7, D	µg/kg dry		20.0	BRL	141	70-130	0.1	30
Toluene	25.2	D	µg/kg dry		20.0	BRL	126	70-130	2	30
1,2,3-Trichlorobenzene	23.5	D	µg/kg dry		20.0	BRL	118	70-130	6	30
1,2,4-Trichlorobenzene	24.1	D	µg/kg dry		20.0	BRL	121	70-130	6	30
1,3,5-Trichlorobenzene	25.5	D	µg/kg dry		20.0	BRL	128	70-130	3	30
1,1,1-Trichloroethane	21.6	D	µg/kg dry		20.0	BRL	108	70-130	2	30
1,1,2-Trichloroethane	21.3	D	µg/kg dry		20.0	BRL	106	70-130	4	30
Trichloroethene	24.8	D	µg/kg dry		20.0	BRL	124	70-130	1	30
Trichlorofluoromethane (Freon 11)	23.1	D	µg/kg dry		20.0	BRL	115	70-130	1	30
1,2,3-Trichloropropane	21.8	D	µg/kg dry		20.0	BRL	109	70-130	7	30
1,2,4-Trimethylbenzene	29.6	QM7, D	µg/kg dry		20.0	2.9	133	70-130	3	30
1,3,5-Trimethylbenzene	28.1	QM7, D	µg/kg dry		20.0	1.0	136	70-130	0.4	30
Vinyl chloride	22.6	D	µg/kg dry		20.0	BRL	113	70-130	0.3	30
m,p-Xylene	27.4	D	µg/kg dry		20.0	1.3	130	70-130	1	30
o-Xylene	26.5	D	µg/kg dry		20.0	0.5	130	70-130	2	30
Tetrahydrofuran	20.5	D	µg/kg dry		20.0	BRL	103	70-130	2	30
Ethyl ether	21.1	D	µg/kg dry		20.0	BRL	105	70-130	0.6	30
Tert-amyl methyl ether	19.7	D	µg/kg dry		20.0	BRL	99	70-130	2	30
Ethyl tert-butyl ether	21.5	D	µg/kg dry		20.0	BRL	108	70-130	0.1	30
Di-isopropyl ether	22.6	D	µg/kg dry		20.0	BRL	113	70-130	1	30
Tert-Butanol / butyl alcohol	189	D	µg/kg dry		200	BRL	94	70-130	9	30
1,4-Dioxane	212	D	µg/kg dry		200	BRL	106	70-130	8	30
trans-1,4-Dichloro-2-butene	18.3	D	µg/kg dry		20.0	BRL	92	70-130	9	30
Ethanol	394	D	µg/kg dry		400	BRL	99	70-130	4	30
Surrogate: 4-Bromofluorobenzene	31.9		µg/kg dry		30.0		106	70-130		
Surrogate: Toluene-d8	29.5		µg/kg dry		30.0		98	70-130		
Surrogate: 1,2-Dichloroethane-d4	26.2		µg/kg dry		30.0		87	70-130		
Surrogate: Dibromofluoromethane	29.2		µg/kg dry		30.0		97	70-130		
<b>Batch 1416796 - SW846 5030 Water MS</b>										
<u>Blank (1416796-BLK1)</u>								Prepared & Analyzed: 21-Jul-14		
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.50		µg/l	0.50						
Benzene	< 1.00		µg/l	1.00						
Bromobenzene	< 1.00		µg/l	1.00						
Bromochloromethane	< 1.00		µg/l	1.00						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
2-Butanone (MEK)	< 10.0		µg/l	10.0						

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### Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416796 - SW846 5030 Water MS</b>										
<u>Blank (1416796-BLK1)</u>										
n-Butylbenzene	< 1.00		µg/l	1.00						
sec-Butylbenzene	< 1.00		µg/l	1.00						
tert-Butylbenzene	< 1.00		µg/l	1.00						
Carbon disulfide	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00		µg/l	2.00						
2-Chlorotoluene	< 1.00		µg/l	1.00						
4-Chlorotoluene	< 1.00		µg/l	1.00						
1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50						
Dibromomethane	< 1.00		µg/l	1.00						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
1,3-Dichloropropane	< 1.00		µg/l	1.00						
2,2-Dichloropropane	< 1.00		µg/l	1.00						
1,1-Dichloropropene	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Ethylbenzene	< 1.00		µg/l	1.00						
Hexachlorobutadiene	< 0.50		µg/l	0.50						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.00		µg/l	1.00						
4-Isopropyltoluene	< 1.00		µg/l	1.00						
Methyl tert-butyl ether	< 1.00		µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.00		µg/l	2.00						
Naphthalene	< 1.00		µg/l	1.00						
n-Propylbenzene	< 1.00		µg/l	1.00						
Styrene	< 1.00		µg/l	1.00						
1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00						
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
Toluene	< 1.00		µg/l	1.00						
1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00						
1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						

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### Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416796 - SW846 5030 Water MS</b>										
<u>Blank (1416796-BLK1)</u>										
1,2,3-Trichloropropane	< 1.00		µg/l	1.00						
1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00						
1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
m,p-Xylene	< 2.00		µg/l	2.00						
o-Xylene	< 1.00		µg/l	1.00						
Tetrahydrofuran	< 2.00		µg/l	2.00						
Ethyl ether	< 1.00		µg/l	1.00						
Tert-amyl methyl ether	< 1.00		µg/l	1.00						
Ethyl tert-butyl ether	< 1.00		µg/l	1.00						
Di-isopropyl ether	< 1.00		µg/l	1.00						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.00		µg/l	5.00						
Ethanol	< 400		µg/l	400						
<u>Surrogate: Toluene-d8</u>										
Surrogate: Toluene-d8	53.1		µg/l		50.0		106	70-130		
<u>Surrogate: 1,2-Dichloroethane-d4</u>										
Surrogate: 1,2-Dichloroethane-d4	52.8		µg/l		50.0		106	70-130		
<u>Surrogate: Dibromofluoromethane</u>										
Surrogate: Dibromofluoromethane	51.7		µg/l		50.0		103	70-130		
<u>LCS (1416796-BS1)</u>										
<u>Prepared &amp; Analyzed: 21-Jul-14</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	<b>21.5</b>		µg/l		20.0		108	70-130		
Acetone	<b>15.3</b>		µg/l		20.0		76	70-130		
Acrylonitrile	<b>17.9</b>		µg/l		20.0		89	70-130		
Benzene	<b>20.8</b>		µg/l		20.0		104	70-130		
Bromobenzene	<b>21.1</b>		µg/l		20.0		105	70-130		
Bromochloromethane	<b>20.3</b>		µg/l		20.0		102	70-130		
Bromodichloromethane	<b>22.4</b>		µg/l		20.0		112	70-130		
Bromoform	<b>18.2</b>		µg/l		20.0		91	70-130		
Bromomethane	<b>24.9</b>		µg/l		20.0		125	70-130		
2-Butanone (MEK)	<b>18.5</b>		µg/l		20.0		93	70-130		
n-Butylbenzene	<b>19.0</b>		µg/l		20.0		95	70-130		
sec-Butylbenzene	<b>18.2</b>		µg/l		20.0		91	70-130		
tert-Butylbenzene	<b>20.9</b>		µg/l		20.0		105	70-130		
Carbon disulfide	<b>22.6</b>		µg/l		20.0		113	70-130		
Carbon tetrachloride	<b>20.1</b>		µg/l		20.0		101	70-130		
Chlorobenzene	<b>19.9</b>		µg/l		20.0		100	70-130		
Chloroethane	<b>20.6</b>		µg/l		20.0		103	70-130		
Chloroform	<b>21.2</b>		µg/l		20.0		106	70-130		
Chloromethane	<b>21.1</b>		µg/l		20.0		105	70-130		
2-Chlorotoluene	<b>21.6</b>		µg/l		20.0		108	70-130		
4-Chlorotoluene	<b>20.0</b>		µg/l		20.0		100	70-130		
1,2-Dibromo-3-chloropropane	<b>16.5</b>		µg/l		20.0		83	70-130		
Dibromochloromethane	<b>21.3</b>		µg/l		20.0		107	70-130		
1,2-Dibromoethane (EDB)	<b>21.6</b>		µg/l		20.0		108	70-130		
Dibromomethane	<b>21.2</b>		µg/l		20.0		106	70-130		
1,2-Dichlorobenzene	<b>20.0</b>		µg/l		20.0		100	70-130		
1,3-Dichlorobenzene	<b>20.4</b>		µg/l		20.0		102	70-130		
1,4-Dichlorobenzene	<b>18.2</b>		µg/l		20.0		91	70-130		
Dichlorodifluoromethane (Freon12)	<b>20.6</b>		µg/l		20.0		103	70-130		
1,1-Dichloroethane	<b>20.5</b>		µg/l		20.0		103	70-130		
1,2-Dichloroethane	<b>22.0</b>		µg/l		20.0		110	70-130		
1,1-Dichloroethene	<b>22.6</b>		µg/l		20.0		113	70-130		

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416796 - SW846 5030 Water MS</b>										
<u>LCS (1416796-BS1)</u>										
<i>Prepared &amp; Analyzed: 21-Jul-14</i>										
cis-1,2-Dichloroethene	<b>20.6</b>		µg/l		20.0	103	70-130			
trans-1,2-Dichloroethene	<b>21.6</b>		µg/l		20.0	108	70-130			
1,2-Dichloropropane	<b>20.1</b>		µg/l		20.0	100	70-130			
1,3-Dichloropropane	<b>21.6</b>		µg/l		20.0	108	70-130			
2,2-Dichloropropane	<b>19.1</b>		µg/l		20.0	95	70-130			
1,1-Dichloropropene	<b>23.2</b>		µg/l		20.0	116	70-130			
cis-1,3-Dichloropropene	<b>18.6</b>		µg/l		20.0	93	70-130			
trans-1,3-Dichloropropene	<b>19.2</b>		µg/l		20.0	96	70-130			
Ethylbenzene	<b>18.9</b>		µg/l		20.0	94	70-130			
Hexachlorobutadiene	<b>19.1</b>		µg/l		20.0	95	70-130			
2-Hexanone (MBK)	<b>17.4</b>		µg/l		20.0	87	70-130			
Isopropylbenzene	<b>20.2</b>		µg/l		20.0	101	70-130			
4-Isopropyltoluene	<b>17.4</b>		µg/l		20.0	87	70-130			
Methyl tert-butyl ether	<b>20.4</b>		µg/l		20.0	102	70-130			
4-Methyl-2-pentanone (MIBK)	<b>20.8</b>		µg/l		20.0	104	70-130			
Methylene chloride	<b>20.1</b>		µg/l		20.0	100	70-130			
Naphthalene	<b>14.7</b>		µg/l		20.0	74	70-130			
n-Propylbenzene	<b>21.5</b>		µg/l		20.0	108	70-130			
Styrene	<b>20.4</b>		µg/l		20.0	102	70-130			
1,1,1,2-Tetrachloroethane	<b>16.1</b>		µg/l		20.0	80	70-130			
1,1,2,2-Tetrachloroethane	<b>19.1</b>		µg/l		20.0	96	70-130			
Tetrachloroethene	<b>20.8</b>		µg/l		20.0	104	70-130			
Toluene	<b>22.7</b>		µg/l		20.0	113	70-130			
1,2,3-Trichlorobenzene	<b>16.0</b>		µg/l		20.0	80	70-130			
1,2,4-Trichlorobenzene	<b>15.5</b>		µg/l		20.0	77	70-130			
1,3,5-Trichlorobenzene	<b>17.5</b>		µg/l		20.0	87	70-130			
1,1,1-Trichloroethane	<b>20.7</b>		µg/l		20.0	103	70-130			
1,1,2-Trichloroethane	<b>21.6</b>		µg/l		20.0	108	70-130			
Trichloroethene	<b>22.0</b>		µg/l		20.0	110	70-130			
Trichlorofluoromethane (Freon 11)	<b>22.5</b>		µg/l		20.0	113	70-130			
1,2,3-Trichloropropane	<b>19.5</b>		µg/l		20.0	98	70-130			
1,2,4-Trimethylbenzene	<b>19.2</b>		µg/l		20.0	96	70-130			
1,3,5-Trimethylbenzene	<b>21.5</b>		µg/l		20.0	108	70-130			
Vinyl chloride	<b>24.8</b>		µg/l		20.0	124	70-130			
m,p-Xylene	<b>18.8</b>		µg/l		20.0	94	70-130			
o-Xylene	<b>20.8</b>		µg/l		20.0	104	70-130			
Tetrahydrofuran	<b>17.3</b>		µg/l		20.0	86	70-130			
Ethyl ether	<b>19.4</b>		µg/l		20.0	97	70-130			
Tert-amyl methyl ether	<b>22.3</b>		µg/l		20.0	112	70-130			
Ethyl tert-butyl ether	<b>22.4</b>		µg/l		20.0	112	70-130			
Di-isopropyl ether	<b>20.9</b>		µg/l		20.0	104	70-130			
Tert-Butanol / butyl alcohol	<b>189</b>		µg/l		200	95	70-130			
1,4-Dioxane	<b>186</b>		µg/l		200	93	70-130			
trans-1,4-Dichloro-2-butene	<b>15.5</b>		µg/l		20.0	78	70-130			
Ethanol	<b>407</b>		µg/l		400	102	70-130			
Surrogate: Toluene-d8	53.6		µg/l		50.0	107	70-130			
Surrogate: 1,2-Dichloroethane-d4	52.9		µg/l		50.0	106	70-130			
Surrogate: Dibromofluoromethane	51.4		µg/l		50.0	103	70-130			
<u>LCS Dup (1416796-BSD1)</u>										
<i>Prepared &amp; Analyzed: 21-Jul-14</i>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	<b>20.7</b>		µg/l		20.0	103	70-130	4	20	
Acetone	<b>16.3</b>		µg/l		20.0	82	70-130	7	20	

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### Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416796 - SW846 5030 Water MS</b>										
<u>LCS Dup (1416796-BSD1)</u>										
<b>Prepared &amp; Analyzed: 21-Jul-14</b>										
Acrylonitrile	17.7		µg/l		20.0	89	70-130	0.8	20	
Benzene	20.3		µg/l		20.0	101	70-130	2	20	
Bromobenzene	21.0		µg/l		20.0	105	70-130	0.2	20	
Bromoform	18.8		µg/l		20.0	94	70-130	3	20	
Bromomethane	22.9		µg/l		20.0	114	70-130	8	20	
2-Butanone (MEK)	18.3		µg/l		20.0	91	70-130	2	20	
n-Butylbenzene	18.8		µg/l		20.0	94	70-130	1	20	
sec-Butylbenzene	18.3		µg/l		20.0	91	70-130	0.5	20	
tert-Butylbenzene	20.8		µg/l		20.0	104	70-130	0.5	20	
Carbon disulfide	21.5		µg/l		20.0	108	70-130	5	20	
Carbon tetrachloride	19.1		µg/l		20.0	96	70-130	5	20	
Chlorobenzene	20.0		µg/l		20.0	100	70-130	0.7	20	
Chloroethane	19.4		µg/l		20.0	97	70-130	6	20	
Chloroform	20.3		µg/l		20.0	101	70-130	5	20	
Chloromethane	20.3		µg/l		20.0	102	70-130	4	20	
2-Chlorotoluene	21.5		µg/l		20.0	108	70-130	0.2	20	
4-Chlorotoluene	19.5		µg/l		20.0	98	70-130	2	20	
1,2-Dibromo-3-chloropropane	15.6		µg/l		20.0	78	70-130	6	20	
Dibromochloromethane	20.5		µg/l		20.0	103	70-130	4	20	
1,2-Dibromoethane (EDB)	19.8		µg/l		20.0	99	70-130	8	20	
Dibromomethane	20.2		µg/l		20.0	101	70-130	5	20	
1,2-Dichlorobenzene	19.9		µg/l		20.0	100	70-130	0.2	20	
1,3-Dichlorobenzene	20.9		µg/l		20.0	104	70-130	2	20	
1,4-Dichlorobenzene	17.7		µg/l		20.0	89	70-130	3	20	
Dichlorodifluoromethane (Freon12)	19.7		µg/l		20.0	98	70-130	5	20	
1,1-Dichloroethane	19.8		µg/l		20.0	99	70-130	4	20	
1,2-Dichloroethane	21.0		µg/l		20.0	105	70-130	4	20	
1,1-Dichloroethene	22.0		µg/l		20.0	110	70-130	3	20	
cis-1,2-Dichloroethene	20.0		µg/l		20.0	100	70-130	3	20	
trans-1,2-Dichloroethene	20.8		µg/l		20.0	104	70-130	4	20	
1,2-Dichloropropane	19.4		µg/l		20.0	97	70-130	4	20	
1,3-Dichloropropane	19.9		µg/l		20.0	99	70-130	8	20	
2,2-Dichloropropane	17.9		µg/l		20.0	90	70-130	6	20	
1,1-Dichloropropene	22.0		µg/l		20.0	110	70-130	6	20	
cis-1,3-Dichloropropene	18.0		µg/l		20.0	90	70-130	4	20	
trans-1,3-Dichloropropene	18.6		µg/l		20.0	93	70-130	3	20	
Ethylbenzene	19.1		µg/l		20.0	95	70-130	1	20	
Hexachlorobutadiene	18.6		µg/l		20.0	93	70-130	2	20	
2-Hexanone (MBK)	14.7		µg/l		20.0	74	70-130	16	20	
Isopropylbenzene	19.4		µg/l		20.0	97	70-130	4	20	
4-Isopropyltoluene	17.5		µg/l		20.0	88	70-130	1	20	
Methyl tert-butyl ether	20.4		µg/l		20.0	102	70-130	0.1	20	
4-Methyl-2-pentanone (MIBK)	16.3	QR5	µg/l		20.0	82	70-130	24	20	
Methylene chloride	19.4		µg/l		20.0	97	70-130	4	20	
Naphthalene	15.2		µg/l		20.0	76	70-130	3	20	
n-Propylbenzene	21.2		µg/l		20.0	106	70-130	2	20	
Styrene	20.0		µg/l		20.0	100	70-130	2	20	
1,1,1,2-Tetrachloroethane	17.0		µg/l		20.0	85	70-130	5	20	
1,1,2,2-Tetrachloroethane	18.9		µg/l		20.0	94	70-130	1	20	
Tetrachloroethene	19.0		µg/l		20.0	95	70-130	9	20	

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416796 - SW846 5030 Water MS</b>										
<u>LCS Dup (1416796-BSD1)</u>										
						<u>Prepared &amp; Analyzed: 21-Jul-14</u>				
Toluene	<b>21.2</b>		µg/l		20.0	106	70-130	7	20	
1,2,3-Trichlorobenzene	<b>15.4</b>		µg/l		20.0	77	70-130	4	20	
1,2,4-Trichlorobenzene	<b>15.8</b>		µg/l		20.0	79	70-130	2	20	
1,3,5-Trichlorobenzene	<b>17.1</b>		µg/l		20.0	85	70-130	2	20	
1,1,1-Trichloroethane	<b>19.9</b>		µg/l		20.0	99	70-130	4	20	
1,1,2-Trichloroethane	<b>20.8</b>		µg/l		20.0	104	70-130	4	20	
Trichloroethylene	<b>21.2</b>		µg/l		20.0	106	70-130	4	20	
Trichlorofluoromethane (Freon 11)	<b>21.0</b>		µg/l		20.0	105	70-130	7	20	
1,2,3-Trichloropropane	<b>20.1</b>		µg/l		20.0	100	70-130	3	20	
1,2,4-Trimethylbenzene	<b>19.0</b>		µg/l		20.0	95	70-130	1	20	
1,3,5-Trimethylbenzene	<b>21.0</b>		µg/l		20.0	105	70-130	2	20	
Vinyl chloride	<b>23.2</b>		µg/l		20.0	116	70-130	7	20	
m,p-Xylene	<b>18.9</b>		µg/l		20.0	94	70-130	0.3	20	
o-Xylene	<b>20.5</b>		µg/l		20.0	103	70-130	1	20	
Tetrahydrofuran	<b>17.4</b>		µg/l		20.0	87	70-130	0.5	20	
Ethyl ether	<b>19.4</b>		µg/l		20.0	97	70-130	0.3	20	
Tert-amyl methyl ether	<b>21.1</b>		µg/l		20.0	106	70-130	5	20	
Ethyl tert-butyl ether	<b>22.2</b>		µg/l		20.0	111	70-130	0.9	20	
Di-isopropyl ether	<b>20.0</b>		µg/l		20.0	100	70-130	4	20	
Tert-Butanol / butyl alcohol	<b>166</b>		µg/l		200	83	70-130	13	20	
1,4-Dioxane	<b>189</b>		µg/l		200	94	70-130	1	20	
trans-1,4-Dichloro-2-butene	<b>16.0</b>		µg/l		20.0	80	70-130	3	20	
Ethanol	<b>401</b>		µg/l		400	100	70-130	1	20	
Surrogate: Toluene-d8	52.1		µg/l		50.0	104	70-130			
Surrogate: 1,2-Dichloroethane-d4	52.0		µg/l		50.0	104	70-130			
Surrogate: Dibromofluoromethane	50.9		µg/l		50.0	102	70-130			
<b>Batch 1416921 - SW846 5035A Soil (low level)</b>										
<u>Blank (1416921-BLK1)</u>										
						<u>Prepared &amp; Analyzed: 22-Jul-14</u>				
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0		µg/kg wet		5.0					
Acetone	< 50.0		µg/kg wet		50.0					
Acrylonitrile	< 5.0		µg/kg wet		5.0					
Benzene	< 5.0		µg/kg wet		5.0					
Bromobenzene	< 5.0		µg/kg wet		5.0					
Bromochloromethane	< 5.0		µg/kg wet		5.0					
Bromodichloromethane	< 5.0		µg/kg wet		5.0					
Bromoform	< 5.0		µg/kg wet		5.0					
Bromomethane	< 10.0		µg/kg wet		10.0					
2-Butanone (MEK)	< 50.0		µg/kg wet		50.0					
n-Butylbenzene	< 5.0		µg/kg wet		5.0					
sec-Butylbenzene	< 5.0		µg/kg wet		5.0					
tert-Butylbenzene	< 5.0		µg/kg wet		5.0					
Carbon disulfide	< 10.0		µg/kg wet		10.0					
Carbon tetrachloride	< 5.0		µg/kg wet		5.0					
Chlorobenzene	< 5.0		µg/kg wet		5.0					
Chloroethane	< 10.0		µg/kg wet		10.0					
Chloroform	< 5.0		µg/kg wet		5.0					
Chloromethane	< 10.0		µg/kg wet		10.0					
2-Chlorotoluene	< 5.0		µg/kg wet		5.0					
4-Chlorotoluene	< 5.0		µg/kg wet		5.0					
1,2-Dibromo-3-chloropropane	< 10.0		µg/kg wet		10.0					
Dibromochloromethane	< 5.0		µg/kg wet		5.0					

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416921 - SW846 5035A Soil (low level)</b>										
<u>Blank (1416921-BLK1)</u>										
<i>Prepared &amp; Analyzed: 22-Jul-14</i>										
1,2-Dibromoethane (EDB)	< 5.0		µg/kg wet	5.0						
Dibromomethane	< 5.0		µg/kg wet	5.0						
1,2-Dichlorobenzene	< 5.0		µg/kg wet	5.0						
1,3-Dichlorobenzene	< 5.0		µg/kg wet	5.0						
1,4-Dichlorobenzene	< 5.0		µg/kg wet	5.0						
Dichlorodifluoromethane (Freon12)	< 10.0		µg/kg wet	10.0						
1,1-Dichloroethane	< 5.0		µg/kg wet	5.0						
1,2-Dichloroethane	< 5.0		µg/kg wet	5.0						
1,1-Dichloroethene	< 5.0		µg/kg wet	5.0						
cis-1,2-Dichloroethene	< 5.0		µg/kg wet	5.0						
trans-1,2-Dichloroethene	< 5.0		µg/kg wet	5.0						
1,2-Dichloropropane	< 5.0		µg/kg wet	5.0						
1,3-Dichloropropane	< 5.0		µg/kg wet	5.0						
2,2-Dichloropropane	< 5.0		µg/kg wet	5.0						
1,1-Dichloropropene	< 5.0		µg/kg wet	5.0						
cis-1,3-Dichloropropene	< 5.0		µg/kg wet	5.0						
trans-1,3-Dichloropropene	< 5.0		µg/kg wet	5.0						
Ethylbenzene	< 5.0		µg/kg wet	5.0						
Hexachlorobutadiene	< 5.0		µg/kg wet	5.0						
2-Hexanone (MBK)	< 50.0		µg/kg wet	50.0						
Isopropylbenzene	< 5.0		µg/kg wet	5.0						
4-Isopropyltoluene	< 5.0		µg/kg wet	5.0						
Methyl tert-butyl ether	< 5.0		µg/kg wet	5.0						
4-Methyl-2-pentanone (MIBK)	< 50.0		µg/kg wet	50.0						
Methylene chloride	< 10.0		µg/kg wet	10.0						
Naphthalene	< 5.0		µg/kg wet	5.0						
n-Propylbenzene	< 5.0		µg/kg wet	5.0						
Styrene	< 5.0		µg/kg wet	5.0						
1,1,1,2-Tetrachloroethane	< 5.0		µg/kg wet	5.0						
1,1,2,2-Tetrachloroethane	< 5.0		µg/kg wet	5.0						
Tetrachloroethene	< 5.0		µg/kg wet	5.0						
Toluene	< 5.0		µg/kg wet	5.0						
1,2,3-Trichlorobenzene	< 5.0		µg/kg wet	5.0						
1,2,4-Trichlorobenzene	< 5.0		µg/kg wet	5.0						
1,3,5-Trichlorobenzene	< 5.0		µg/kg wet	5.0						
1,1,1-Trichloroethane	< 5.0		µg/kg wet	5.0						
1,1,2-Trichloroethane	< 5.0		µg/kg wet	5.0						
Trichloroethene	< 5.0		µg/kg wet	5.0						
Trichlorofluoromethane (Freon 11)	< 5.0		µg/kg wet	5.0						
1,2,3-Trichloropropane	< 5.0		µg/kg wet	5.0						
1,2,4-Trimethylbenzene	< 5.0		µg/kg wet	5.0						
1,3,5-Trimethylbenzene	< 5.0		µg/kg wet	5.0						
Vinyl chloride	< 5.0		µg/kg wet	5.0						
m,p-Xylene	< 10.0		µg/kg wet	10.0						
o-Xylene	< 5.0		µg/kg wet	5.0						
Tetrahydrofuran	< 10.0		µg/kg wet	10.0						
Ethyl ether	< 5.0		µg/kg wet	5.0						
Tert-amyl methyl ether	< 5.0		µg/kg wet	5.0						
Ethyl tert-butyl ether	< 5.0		µg/kg wet	5.0						
Di-isopropyl ether	< 5.0		µg/kg wet	5.0						
Tert-Butanol / butyl alcohol	< 50.0		µg/kg wet	50.0						
1,4-Dioxane	< 100		µg/kg wet	100						

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### Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416921 - SW846 5035A Soil (low level)</b>										
<u>Blank (1416921-BLK1)</u>										
trans-1,4-Dichloro-2-butene	< 25.0		µg/kg wet	25.0				Prepared & Analyzed: 22-Jul-14		
Ethanol	< 2000		µg/kg wet	2000						
Surrogate: 4-Bromofluorobenzene	50.2		µg/kg wet		50.0		100	70-130		
Surrogate: Toluene-d8	49.7		µg/kg wet		50.0		99	70-130		
Surrogate: 1,2-Dichloroethane-d4	55.4		µg/kg wet		50.0		111	70-130		
Surrogate: Dibromofluoromethane	49.1		µg/kg wet		50.0		98	70-130		
<u>LCS (1416921-BS1)</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	<b>15.4</b>		µg/kg wet		20.0		77	70-130		
Acetone	<b>19.2</b>		µg/kg wet		20.0		96	70-130		
Acrylonitrile	<b>18.0</b>		µg/kg wet		20.0		90	70-130		
Benzene	<b>16.9</b>		µg/kg wet		20.0		84	70-130		
Bromobenzene	<b>17.6</b>		µg/kg wet		20.0		88	70-130		
Bromoform	<b>17.6</b>		µg/kg wet		20.0		88	70-130		
Bromodichloromethane	<b>17.3</b>		µg/kg wet		20.0		87	70-130		
Bromoform	<b>18.6</b>		µg/kg wet		20.0		93	70-130		
Bromomethane	<b>17.4</b>		µg/kg wet		20.0		87	70-130		
2-Butanone (MEK)	<b>22.3</b>		µg/kg wet		20.0		112	70-130		
n-Butylbenzene	<b>16.4</b>		µg/kg wet		20.0		82	70-130		
sec-Butylbenzene	<b>17.7</b>		µg/kg wet		20.0		89	70-130		
tert-Butylbenzene	<b>18.1</b>		µg/kg wet		20.0		90	70-130		
Carbon disulfide	<b>16.9</b>		µg/kg wet		20.0		85	70-130		
Carbon tetrachloride	<b>16.2</b>		µg/kg wet		20.0		81	70-130		
Chlorobenzene	<b>19.5</b>		µg/kg wet		20.0		98	70-130		
Chloroethane	<b>16.3</b>		µg/kg wet		20.0		82	70-130		
Chloroform	<b>16.5</b>		µg/kg wet		20.0		82	70-130		
Chloromethane	<b>16.1</b>		µg/kg wet		20.0		80	70-130		
2-Chlorotoluene	<b>18.0</b>		µg/kg wet		20.0		90	70-130		
4-Chlorotoluene	<b>18.3</b>		µg/kg wet		20.0		91	70-130		
1,2-Dibromo-3-chloropropane	<b>17.2</b>		µg/kg wet		20.0		86	70-130		
Dibromochloromethane	<b>17.8</b>		µg/kg wet		20.0		89	70-130		
1,2-Dibromoethane (EDB)	<b>17.9</b>		µg/kg wet		20.0		90	70-130		
Dibromomethane	<b>17.1</b>		µg/kg wet		20.0		86	70-130		
1,2-Dichlorobenzene	<b>17.7</b>		µg/kg wet		20.0		89	70-130		
1,3-Dichlorobenzene	<b>17.7</b>		µg/kg wet		20.0		89	70-130		
1,4-Dichlorobenzene	<b>17.8</b>		µg/kg wet		20.0		89	70-130		
Dichlorodifluoromethane (Freon12)	<b>15.4</b>		µg/kg wet		20.0		77	70-130		
1,1-Dichloroethane	<b>16.7</b>		µg/kg wet		20.0		83	70-130		
1,2-Dichloroethane	<b>16.9</b>		µg/kg wet		20.0		84	70-130		
1,1-Dichloroethene	<b>15.6</b>		µg/kg wet		20.0		78	70-130		
cis-1,2-Dichloroethene	<b>16.9</b>		µg/kg wet		20.0		85	70-130		
trans-1,2-Dichloroethene	<b>16.2</b>		µg/kg wet		20.0		81	70-130		
1,2-Dichloropropane	<b>17.7</b>		µg/kg wet		20.0		88	70-130		
1,3-Dichloropropane	<b>17.5</b>		µg/kg wet		20.0		88	70-130		
2,2-Dichloropropane	<b>15.2</b>		µg/kg wet		20.0		76	70-130		
1,1-Dichloropropene	<b>16.5</b>		µg/kg wet		20.0		83	70-130		
cis-1,3-Dichloropropene	<b>17.9</b>		µg/kg wet		20.0		90	70-130		
trans-1,3-Dichloropropene	<b>17.4</b>		µg/kg wet		20.0		87	70-130		
Ethylbenzene	<b>18.0</b>		µg/kg wet		20.0		90	70-130		
Hexachlorobutadiene	<b>15.9</b>		µg/kg wet		20.0		80	70-130		
2-Hexanone (MBK)	<b>17.4</b>		µg/kg wet		20.0		87	70-130		
Isopropylbenzene	<b>17.4</b>		µg/kg wet		20.0		87	70-130		

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416921 - SW846 5035A Soil (low level)</b>										
<u>LCS (1416921-BS1)</u>						Prepared & Analyzed: 22-Jul-14				
4-Isopropyltoluene	<b>16.8</b>		µg/kg wet		20.0	84	70-130			
Methyl tert-butyl ether	<b>17.0</b>		µg/kg wet		20.0	85	70-130			
4-Methyl-2-pentanone (MIBK)	<b>16.9</b>		µg/kg wet		20.0	84	70-130			
Methylene chloride	<b>17.7</b>		µg/kg wet		20.0	88	70-130			
Naphthalene	<b>15.6</b>		µg/kg wet		20.0	78	70-130			
n-Propylbenzene	<b>18.1</b>		µg/kg wet		20.0	90	70-130			
Styrene	<b>19.0</b>		µg/kg wet		20.0	95	70-130			
1,1,1,2-Tetrachloroethane	<b>17.8</b>		µg/kg wet		20.0	89	70-130			
1,1,2,2-Tetrachloroethane	<b>19.6</b>		µg/kg wet		20.0	98	70-130			
Tetrachloroethene	<b>16.0</b>		µg/kg wet		20.0	80	70-130			
Toluene	<b>16.5</b>		µg/kg wet		20.0	82	70-130			
1,2,3-Trichlorobenzene	<b>17.0</b>		µg/kg wet		20.0	85	70-130			
1,2,4-Trichlorobenzene	<b>16.2</b>		µg/kg wet		20.0	81	70-130			
1,3,5-Trichlorobenzene	<b>16.7</b>		µg/kg wet		20.0	83	70-130			
1,1,1-Trichloroethane	<b>16.2</b>		µg/kg wet		20.0	81	70-130			
1,1,2-Trichloroethane	<b>17.6</b>		µg/kg wet		20.0	88	70-130			
Trichloroethene	<b>16.2</b>		µg/kg wet		20.0	81	70-130			
Trichlorofluoromethane (Freon 11)	<b>15.8</b>		µg/kg wet		20.0	79	70-130			
1,2,3-Trichloropropane	<b>19.2</b>		µg/kg wet		20.0	96	70-130			
1,2,4-Trimethylbenzene	<b>17.7</b>		µg/kg wet		20.0	88	70-130			
1,3,5-Trimethylbenzene	<b>17.8</b>		µg/kg wet		20.0	89	70-130			
Vinyl chloride	<b>17.1</b>		µg/kg wet		20.0	86	70-130			
m,p-Xylene	<b>17.6</b>		µg/kg wet		20.0	88	70-130			
o-Xylene	<b>18.0</b>		µg/kg wet		20.0	90	70-130			
Tetrahydrofuran	<b>17.9</b>		µg/kg wet		20.0	90	70-130			
Ethyl ether	<b>19.2</b>		µg/kg wet		20.0	96	70-130			
Tert-amyl methyl ether	<b>18.7</b>		µg/kg wet		20.0	94	70-130			
Ethyl tert-butyl ether	<b>17.2</b>		µg/kg wet		20.0	86	70-130			
Di-isopropyl ether	<b>17.8</b>		µg/kg wet		20.0	89	70-130			
Tert-Butanol / butyl alcohol	<b>158</b>		µg/kg wet		200	79	70-130			
1,4-Dioxane	<b>169</b>		µg/kg wet		200	84	70-130			
trans-1,4-Dichloro-2-butene	<b>19.0</b>		µg/kg wet		20.0	95	70-130			
Ethanol	<b>353</b>		µg/kg wet		400	88	70-130			
Surrogate: 4-Bromofluorobenzene	51.9		µg/kg wet		50.0	104	70-130			
Surrogate: Toluene-d8	49.3		µg/kg wet		50.0	99	70-130			
Surrogate: 1,2-Dichloroethane-d4	48.1		µg/kg wet		50.0	96	70-130			
Surrogate: Dibromofluoromethane	48.7		µg/kg wet		50.0	97	70-130			
<u>LCS Dup (1416921-BSD1)</u>						Prepared & Analyzed: 22-Jul-14				
1,1,2-Trichlorotrifluoroethane (Freon 113)	<b>15.6</b>		µg/kg wet		20.0	78	70-130	0.9	30	
Acetone	<b>21.3</b>		µg/kg wet		20.0	106	70-130	10	30	
Acrylonitrile	<b>18.8</b>		µg/kg wet		20.0	94	70-130	4	30	
Benzene	<b>17.2</b>		µg/kg wet		20.0	86	70-130	2	30	
Bromobenzene	<b>18.1</b>		µg/kg wet		20.0	90	70-130	3	30	
Bromoform	<b>17.3</b>		µg/kg wet		20.0	86	70-130	2	30	
Bromochloromethane	<b>17.8</b>		µg/kg wet		20.0	89	70-130	3	30	
Bromodichloromethane	<b>18.7</b>		µg/kg wet		20.0	93	70-130	0.4	30	
Bromomethane	<b>17.5</b>		µg/kg wet		20.0	88	70-130	0.7	30	
2-Butanone (MEK)	<b>22.6</b>		µg/kg wet		20.0	113	70-130	1	30	
n-Butylbenzene	<b>16.3</b>		µg/kg wet		20.0	82	70-130	0.5	30	
sec-Butylbenzene	<b>17.9</b>		µg/kg wet		20.0	90	70-130	1	30	
tert-Butylbenzene	<b>18.5</b>		µg/kg wet		20.0	92	70-130	2	30	

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416921 - SW846 5035A Soil (low level)</b>										
<u>LCS Dup (1416921-BSD1)</u>										
<i>Prepared &amp; Analyzed: 22-Jul-14</i>										
Carbon disulfide	<b>16.9</b>		µg/kg wet		20.0	85	70-130	0.06		30
Carbon tetrachloride	<b>16.4</b>		µg/kg wet		20.0	82	70-130	1		30
Chlorobenzene	<b>19.6</b>		µg/kg wet		20.0	98	70-130	0.5		30
Chloroethane	<b>16.2</b>		µg/kg wet		20.0	81	70-130	0.9		30
Chloroform	<b>16.6</b>		µg/kg wet		20.0	83	70-130	0.4		30
Chloromethane	<b>16.2</b>		µg/kg wet		20.0	81	70-130	0.7		30
2-Chlorotoluene	<b>18.3</b>		µg/kg wet		20.0	91	70-130	1		30
4-Chlorotoluene	<b>18.5</b>		µg/kg wet		20.0	92	70-130	1		30
1,2-Dibromo-3-chloropropane	<b>16.5</b>		µg/kg wet		20.0	82	70-130	4		30
Dibromochloromethane	<b>18.1</b>		µg/kg wet		20.0	91	70-130	2		30
1,2-Dibromoethane (EDB)	<b>18.2</b>		µg/kg wet		20.0	91	70-130	1		30
Dibromomethane	<b>17.8</b>		µg/kg wet		20.0	89	70-130	4		30
1,2-Dichlorobenzene	<b>18.0</b>		µg/kg wet		20.0	90	70-130	1		30
1,3-Dichlorobenzene	<b>18.2</b>		µg/kg wet		20.0	91	70-130	3		30
1,4-Dichlorobenzene	<b>18.1</b>		µg/kg wet		20.0	90	70-130	2		30
Dichlorodifluoromethane (Freon12)	<b>15.3</b>		µg/kg wet		20.0	76	70-130	0.8		30
1,1-Dichloroethane	<b>16.9</b>		µg/kg wet		20.0	84	70-130	1		30
1,2-Dichloroethane	<b>17.2</b>		µg/kg wet		20.0	86	70-130	2		30
1,1-Dichloroethene	<b>15.8</b>		µg/kg wet		20.0	79	70-130	1		30
cis-1,2-Dichloroethene	<b>17.2</b>		µg/kg wet		20.0	86	70-130	2		30
trans-1,2-Dichloroethene	<b>16.6</b>		µg/kg wet		20.0	83	70-130	3		30
1,2-Dichloropropane	<b>17.4</b>		µg/kg wet		20.0	87	70-130	1		30
1,3-Dichloropropane	<b>18.0</b>		µg/kg wet		20.0	90	70-130	3		30
2,2-Dichloropropane	<b>15.2</b>		µg/kg wet		20.0	76	70-130	0.5		30
1,1-Dichloropropene	<b>16.5</b>		µg/kg wet		20.0	83	70-130	0		30
cis-1,3-Dichloropropene	<b>18.0</b>		µg/kg wet		20.0	90	70-130	0.2		30
trans-1,3-Dichloropropene	<b>17.4</b>		µg/kg wet		20.0	87	70-130	0.1		30
Ethylbenzene	<b>18.2</b>		µg/kg wet		20.0	91	70-130	1		30
Hexachlorobutadiene	<b>16.2</b>		µg/kg wet		20.0	81	70-130	2		30
2-Hexanone (MBK)	<b>17.1</b>		µg/kg wet		20.0	86	70-130	2		30
Isopropylbenzene	<b>17.7</b>		µg/kg wet		20.0	89	70-130	2		30
4-Isopropyltoluene	<b>16.9</b>		µg/kg wet		20.0	84	70-130	0.2		30
Methyl tert-butyl ether	<b>17.7</b>		µg/kg wet		20.0	88	70-130	4		30
4-Methyl-2-pentanone (MIBK)	<b>18.3</b>		µg/kg wet		20.0	92	70-130	8		30
Methylene chloride	<b>17.8</b>		µg/kg wet		20.0	89	70-130	0.8		30
Naphthalene	<b>15.0</b>		µg/kg wet		20.0	75	70-130	4		30
n-Propylbenzene	<b>18.5</b>		µg/kg wet		20.0	92	70-130	2		30
Styrene	<b>18.9</b>		µg/kg wet		20.0	94	70-130	0.5		30
1,1,1,2-Tetrachloroethane	<b>18.2</b>		µg/kg wet		20.0	91	70-130	2		30
1,1,2,2-Tetrachloroethane	<b>20.0</b>		µg/kg wet		20.0	100	70-130	2		30
Tetrachloroethene	<b>15.9</b>		µg/kg wet		20.0	80	70-130	0.1		30
Toluene	<b>16.7</b>		µg/kg wet		20.0	84	70-130	1		30
1,2,3-Trichlorobenzene	<b>16.9</b>		µg/kg wet		20.0	84	70-130	1		30
1,2,4-Trichlorobenzene	<b>16.2</b>		µg/kg wet		20.0	81	70-130	0.2		30
1,3,5-Trichlorobenzene	<b>16.6</b>		µg/kg wet		20.0	83	70-130	0.5		30
1,1,1-Trichloroethane	<b>16.5</b>		µg/kg wet		20.0	83	70-130	2		30
1,1,2-Trichloroethane	<b>17.9</b>		µg/kg wet		20.0	90	70-130	2		30
Trichloroethene	<b>16.6</b>		µg/kg wet		20.0	83	70-130	2		30
Trichlorofluoromethane (Freon 11)	<b>15.9</b>		µg/kg wet		20.0	79	70-130	0.4		30
1,2,3-Trichloropropane	<b>19.8</b>		µg/kg wet		20.0	99	70-130	3		30
1,2,4-Trimethylbenzene	<b>17.6</b>		µg/kg wet		20.0	88	70-130	0.7		30
1,3,5-Trimethylbenzene	<b>18.1</b>		µg/kg wet		20.0	90	70-130	1		30

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416921 - SW846 5035A Soil (low level)</b>										
<u>LCS Dup (1416921-BSD1)</u>										
						<b>Prepared &amp; Analyzed: 22-Jul-14</b>				
Vinyl chloride	<b>17.1</b>		µg/kg wet		20.0	85	70-130	0.5	30	
m,p-Xylene	<b>18.1</b>		µg/kg wet		20.0	91	70-130	3	30	
o-Xylene	<b>18.2</b>		µg/kg wet		20.0	91	70-130	1	30	
Tetrahydrofuran	<b>17.7</b>		µg/kg wet		20.0	89	70-130	1	30	
Ethyl ether	<b>19.1</b>		µg/kg wet		20.0	96	70-130	0.6	30	
Tert-amyl methyl ether	<b>18.6</b>		µg/kg wet		20.0	93	70-130	0.4	30	
Ethyl tert-butyl ether	<b>17.6</b>		µg/kg wet		20.0	88	70-130	2	30	
Di-isopropyl ether	<b>18.3</b>		µg/kg wet		20.0	92	70-130	3	30	
Tert-Butanol / butyl alcohol	<b>164</b>		µg/kg wet		200	82	70-130	4	30	
1,4-Dioxane	<b>173</b>		µg/kg wet		200	87	70-130	3	30	
trans-1,4-Dichloro-2-butene	<b>17.6</b>		µg/kg wet		20.0	88	70-130	8	30	
Ethanol	<b>385</b>		µg/kg wet		400	96	70-130	9	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	51.3		µg/kg wet		50.0	103	70-130			
<i>Surrogate: Toluene-d8</i>	49.6		µg/kg wet		50.0	99	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	47.8		µg/kg wet		50.0	96	70-130			
<i>Surrogate: Dibromofluoromethane</i>	49.2		µg/kg wet		50.0	98	70-130			

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### Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1416653 - SW846 3550C</b>										
<u>Blank (1416653-BLK1)</u>										
Gasoline	< 26.4		mg/kg wet	26.4						
Fuel Oil #2	< 26.4		mg/kg wet	26.4						
Fuel Oil #4	< 26.4		mg/kg wet	26.4						
Fuel Oil #6	< 26.4		mg/kg wet	26.4						
Motor Oil	< 26.4		mg/kg wet	26.4						
Ligroin	< 26.4		mg/kg wet	26.4						
Aviation Fuel	< 26.4		mg/kg wet	26.4						
Hydraulic Oil	< 26.4		mg/kg wet	26.4						
Dielectric Fluid	< 26.4		mg/kg wet	26.4						
Unidentified	< 26.4		mg/kg wet	26.4						
Other Oil	< 26.4		mg/kg wet	26.4						
Total Petroleum Hydrocarbons	< 26.4		mg/kg wet	26.4						
Surrogate: 1-Chlorooctadecane	2.98		mg/kg wet		3.30		90	40-140		
<u>LCS (1416653-BS2)</u>										
Fuel Oil #2	<b>651</b>		mg/kg wet	26.3	660		99	40-140		
Surrogate: 1-Chlorooctadecane	3.32		mg/kg wet		3.30		100	40-140		
<u>LCS Dup (1416653-BSD2)</u>										
Fuel Oil #2	<b>652</b>		mg/kg wet	26.4	662		99	40-140	0.06	200
Surrogate: 1-Chlorooctadecane	3.24		mg/kg wet		3.31		98	40-140		

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**The following list indicates the date and time low-level VOC soil/sediment samples were placed in the freezer:**

SB92975-04

*Mid Seep Soil*

7/17/2014 11:25 AM

## Notes and Definitions

D	Data reported from a dilution
E	This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM10	LCS/LCSD were analyzed in place of MS/MSD.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR5	RPD out of acceptance range.
V11	Data confirmed with duplicate analysis.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

### Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.  
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel  
Fuel Oil #4 - includes #4 fuel oil  
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil  
Motor Oil - includes virgin and waste automobile oil  
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha  
Aviation Fuel - includes kerosene, Jet A and JP-4  
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as Calculated as.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

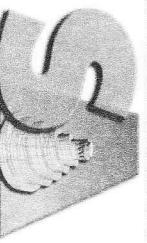
Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:  
Nicole Leja  
Rebecca Merz



# CHAIN OF CUSTODY RECORD

SPECTRUM ANALYTICAL, INC.  
Featuring  
HANIBAL TECHNOLOGY

Page 1 of 1

Report To: ECS

Elm St Ste 3  
Waterbury VT 05676

Invoice To: ECS Accounting  
Agawam MA

Project No.: 08-221182.00  
Site Name: Waterville FD

Telephone #: 802-241-4131  
Project Mgr: Laura Woodard

P.O. No.: \_\_\_\_\_ RQN: Special  
DW=Drinking Water GW=Groundwater WW=Wastewater

O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air  
X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_  
G=Grab C=Composite

Special Handling:  
 Standard TAT - 7 to 10 business days  
 Rush TAT - Date Needed:  
 All TATs subject to laboratory approval.  
 Min. 24-hour notification needed for rushes.  
 Samples disposed of after 60 days unless otherwise instructed.

1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid 7=CH<sub>3</sub>OH  
8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub> 11= \_\_\_\_\_ 12= \_\_\_\_\_

Containers: \_\_\_\_\_ Analyses: \_\_\_\_\_  
List preservative code below: \_\_\_\_\_ QA/QC Reporting Notes:  
\* additional charges may apply

MA DEP MCP CAM Report: Yes  No   
CT DPH RCP Report: Yes  No   
QA/QC Reporting Level  
 Standard  No OC  DQA\*  
 NY ASP A\*  NY ASP B\*  
 NJ Reduced\*  NJ Full\*  
 TIER II\*  TIER IV\*

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix
SBacons	Upstream	7/15/14	1205	G	GW
02	Midstream		1244	G	3
03	Downstream		1220	G	3
04	Mid Seep Soil		1210	G	3
05	Downstream Sand		1230	G	2
06	Trip Blank		0800	H <sub>2</sub> O	H <sub>2</sub> O

# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic
8	8	8	8
VOC	TPH	8100	8260

Other \_\_\_\_\_  
State-specific reporting standards:  
 low/high level VOA  
 Extra soil volume  
 provided for  
 possible forensics  
 pending concentrations

Relinquished by:	Received by:	Date:	Time:	Temp°C	EDD Format
<u>Joseph Rose and Beta Camera</u>	<u>Beta Camera</u>	<u>7/15/14</u>	<u>1615</u>	<u>4.6</u>	<input type="checkbox"/>
<u>Bethany</u>	<u>Bethany</u>	<u>7/16/14</u>	<u>17:00</u>	<u>-1</u>	<input checked="" type="checkbox"/> E-mail to <u>lwoodard@easconsult.com</u>
<u>Red</u>	<u>None</u>	<u>7/17/14</u>	<u>125</u>	<u>3.6</u>	<input type="checkbox"/>
				<u>02</u>	<input type="checkbox"/> Condition upon receipt: Custody Seals: <input checked="" type="checkbox"/> Present <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Broken <input checked="" type="checkbox"/> Ambient <input checked="" type="checkbox"/> Iced <input type="checkbox"/> Refrigerated <input type="checkbox"/> DIVOA Frozen <input type="checkbox"/> Soil/Ice Frozen

From: (802) 241-4131  
Amy Beth Connell  
ECS  
1 Elm St.  
Suite 3  
Waterbury, VT 05676

Origin ID: MVLA



J142014061903uv

SHIP TO: (413) 789-9018

BILL RECIPIENT

Laboratory  
Spectrum Analytical  
11 ALMGREN DR

AGAWAM, MA 01001

Ship Date: 16JUL14  
ActWgt: 24.0 LB  
CAD: 103826659/INET3550

Delivery Address Bar Code



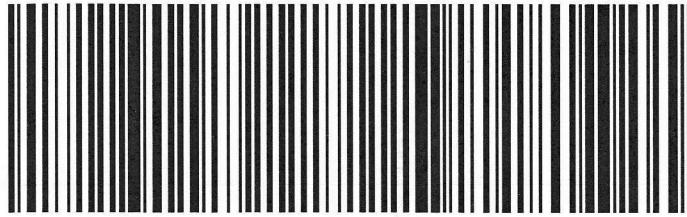
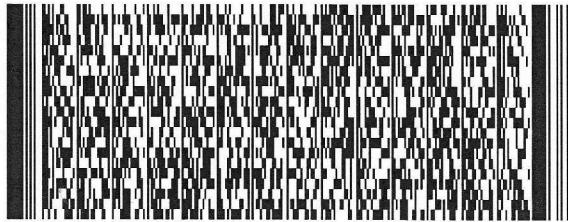
Ref #  
Invoice #  
PO #  
Dept #

THU - 17 JUL 10:30A  
PRIORITY OVERNIGHT

TRK# 7706 1909 5960  
0201

01001  
MA-US  
BDL

EB EHTA



522G2/ED4F/8AC9

**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Report Date:  
13-Aug-14 11:20

- Final Report  
 Re-Issued Report  
 Revised Report



**SPECTRUM ANALYTICAL, INC.**  
*Featuring*  
**HANIBAL TECHNOLOGY**  
**Laboratory Report**

Environmental Compliance Services  
1 Elm St. Suite 3  
Waterbury, VT 05676  
Attn: Laura Woodard

Project: Waterville VOCs - Waterville, VT  
Project #: 08-221182.00

<b>Laboratory ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Date Received</b>
SB93832-01	Near Upstream Seep SW	Surface Water	31-Jul-14 10:20	01-Aug-14 10:35
SB93832-02	Upstream SW	Surface Water	31-Jul-14 10:30	01-Aug-14 10:35
SB93832-03	Near Downstream Seep SW	Surface Water	31-Jul-14 11:05	01-Aug-14 10:35
SB93832-04	Downstream SW	Surface Water	31-Jul-14 11:10	01-Aug-14 10:35
SB93832-05	Church St. Bridge SW	Surface Water	31-Jul-14 11:50	01-Aug-14 10:35
SB93832-06	Trip Blank	Deionized Water	31-Jul-14 00:00	01-Aug-14 10:35

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.

All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110  
Connecticut # PH-0777  
Florida # E87600/E87936  
Maine # MA138  
New Hampshire # 2538  
New Jersey # MA011/MA012  
New York # 11393/11840  
Pennsylvania # 68-04426/68-02924  
Rhode Island # 98  
USDA # S-51435

Authorized by:

Nicole Leja  
Laboratory Director



Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 22 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

*Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at [www.spectrum-analytical.com](http://www.spectrum-analytical.com) for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, NJ-MA012, PA-68-04426 and FL-E87936).*

*Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.*

**CASE NARRATIVE:**

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

The samples were received 2.3 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

**See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.**

**SW846 8260C****Calibration:**

1407030

---

Analyte quantified by quadratic equation type calibration.

1,2,3-Trichlorobenzene  
1,2,4-Trichlorobenzene  
Bromomethane  
Naphthalene  
trans-1,4-Dichloro-2-butene

This affected the following samples:

1418370-BLK1  
1418370-BS1  
1418370-BSD1  
Church St. Bridge SW  
Downstream SW  
Near Downstream Seep SW  
Near Upstream Seep SW  
S407907-ICV1  
S408773-CCV1  
Trip Blank  
Upstream SW

S407907-ICV1

---

Analyte percent recovery is outside individual acceptance criteria (80-120).

Isopropylbenzene (121%)

This affected the following samples:

1418370-BLK1  
1418370-BS1  
1418370-BSD1  
Church St. Bridge SW  
Downstream SW  
Near Downstream Seep SW  
Near Upstream Seep SW  
S408773-CCV1  
Trip Blank  
Upstream SW

**Laboratory Control Samples:**

1418370 BS/BSD

---

## **SW846 8260C**

### **Laboratory Control Samples:**

1418370 BS/BSD

---

Bromomethane percent recoveries (127/142) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

Church St. Bridge SW  
Downstream SW  
Near Downstream Seep SW  
Near Upstream Seep SW  
Trip Blank  
Upstream SW

### **Samples:**

S408773-CCV1

---

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Bromomethane (26.9%)

This affected the following samples:

1418370-BLK1  
1418370-BS1  
1418370-BSD1  
Church St. Bridge SW  
Downstream SW  
Near Downstream Seep SW  
Near Upstream Seep SW  
Trip Blank  
Upstream SW

## Sample Acceptance Check Form

Client: Environmental Compliance Services - Waterbury, VT  
Project: Waterville VOCs - Waterville, VT / 08-221182.00  
Work Order: SB93832  
Sample(s) received on: 8/1/2014  
Received by: Allison Edens

***The following outlines the condition of samples for the attached Chain of Custody upon receipt.***

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
1. Were custody seals present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Were custody seals intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Were samples received at a temperature of $\leq 6^{\circ}\text{C}$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Were samples cooled on ice upon transfer to laboratory representative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were samples refrigerated upon transfer to laboratory representative?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Were sample containers received intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Were samples accompanied by a Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Did sample container labels agree with Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Were samples received within method-specific holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sample Identification

Near Upstream Seep SW

SB93832-01

Client Project #

08-221182.00

Matrix

Surface Water

Collection Date/Time

31-Jul-14 10:20

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.70	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.61	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
71-43-2	Benzene	<b>34.0</b>		µg/l	1.00	0.32	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.46	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	3.11	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.75	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.71	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.65	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.46	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.20	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.40	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	<b>26.8</b>		µg/l	1.00	0.42	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.44	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	2.02	1	"	"	"	"	"	X

*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

Near Upstream Seep SW

SB93832-01

Client Project #

08-221182.00

Matrix

Surface Water

Collection Date/Time

31-Jul-14 10:20

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	<b>1.42</b>		µg/l	1.00	0.47	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	2.47	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.49	1	"	"	"	"	"	X
91-20-3	Naphthalene	<b>4.17</b>		µg/l	1.00	0.54	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	<b>2.90</b>		µg/l	1.00	0.43	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	<b>2.34</b>		µg/l	1.00	0.28	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	<b>27.5</b>		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	<b>7.11</b>		µg/l	1.00	0.39	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.97	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	<b>42.6</b>		µg/l	2.00	0.42	1	"	"	"	"	"	X
95-47-6	o-Xylene	<b>16.5</b>		µg/l	1.00	0.36	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	0.77	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.48	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.89	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.6	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.97	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	80.8	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	101	70-130 %
2037-26-5	Toluene-d8	102	70-130 %
17060-07-0	1,2-Dichloroethane-d4	104	70-130 %
1868-53-7	Dibromofluoromethane	96	70-130 %

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Sample Identification

Upstream SW

SB93832-02

Client Project #

08-221182.00

Matrix

Surface Water

Collection Date/Time

31-Jul-14 10:30

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.70	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.61	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.46	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	3.11	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.75	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.71	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.65	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.46	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.20	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.40	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.44	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	2.02	1	"	"	"	"	"	X

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Sample Identification

Upstream SW

SB93832-02

Client Project #

08-221182.00

Matrix

Surface Water

Collection Date/Time

31-Jul-14 10:30

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.47	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	2.47	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.49	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.54	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.97	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.42	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	0.77	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.48	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.89	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.6	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.97	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	80.8	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	99	70-130 %
2037-26-5	Toluene-d8	101	70-130 %
17060-07-0	1,2-Dichloroethane-d4	104	70-130 %
1868-53-7	Dibromofluoromethane	96	70-130 %

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Sample Identification

Near Downstream Seep SW

SB93832-03

Client Project #

08-221182.00

Matrix

Surface Water

Collection Date/Time

31-Jul-14 11:05

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.	
<b>Volatile Organic Compounds</b>														
<u>Volatile Organic Compounds by SW846 8260</u>														
<u>Prepared by method SW846 5030 Water MS</u>														
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.70	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X	
67-64-1	Acetone	< 10.0		µg/l	10.0	3.61	1	"	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	"	X
74-97-5	Bromoform	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.46	1	"	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	3.11	1	"	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.75	1	"	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.71	1	"	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.65	1	"	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.46	1	"	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.20	1	"	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.40	1	"	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.44	1	"	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	2.02	1	"	"	"	"	"	"	X

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Sample Identification

Near Downstream Seep SW  
SB93832-03

Client Project #

08-221182.00

Matrix

Surface Water

Collection Date/Time

31-Jul-14 11:05

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.47	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	2.47	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.49	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.54	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.97	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.42	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	0.77	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.48	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.89	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.6	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.97	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	80.8	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	98	70-130 %
2037-26-5	Toluene-d8	101	70-130 %
17060-07-0	1,2-Dichloroethane-d4	104	70-130 %
1868-53-7	Dibromofluoromethane	96	70-130 %

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Sample Identification

Downstream SW

SB93832-04

Client Project #

08-221182.00

Matrix

Surface Water

Collection Date/Time

31-Jul-14 11:10

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.70	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.61	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
74-97-5	Bromoform	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.46	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	3.11	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.75	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.71	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.65	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.46	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.20	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.40	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.44	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	2.02	1	"	"	"	"	"	X

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Sample Identification

Downstream SW

SB93832-04

Client Project #

08-221182.00

Matrix

Surface Water

Collection Date/Time

31-Jul-14 11:10

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.47	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	2.47	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.49	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.54	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.97	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.42	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	0.77	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.48	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.89	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.6	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.97	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	80.8	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	100	70-130 %
2037-26-5	Toluene-d8	101	70-130 %
17060-07-0	1,2-Dichloroethane-d4	105	70-130 %
1868-53-7	Dibromofluoromethane	95	70-130 %

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Sample Identification

Church St. Bridge SW

SB93832-05

Client Project #

08-221182.00

Matrix

Surface Water

Collection Date/Time

31-Jul-14 11:50

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.70	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.61	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
74-97-5	Bromoform	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.46	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	3.11	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.75	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.71	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.65	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.46	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.20	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.40	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.44	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	2.02	1	"	"	"	"	"	X

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Sample Identification

Church St. Bridge SW

SB93832-05

Client Project #

08-221182.00

Matrix

Surface Water

Collection Date/Time

31-Jul-14 11:50

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.47	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	2.47	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.49	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.54	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.97	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.42	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	0.77	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.48	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.89	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.6	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.97	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	80.8	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	99	70-130 %										
2037-26-5	Toluene-d8	100	70-130 %										
17060-07-0	1,2-Dichloroethane-d4	103	70-130 %										
1868-53-7	Dibromofluoromethane	96	70-130 %										

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Sample IdentificationTrip Blank  
SB93832-06

Client Project #

08-221182.00

Matrix

Deionized Water

Collection Date/Time

31-Jul-14 00:00

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.70	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.61	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.46	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	3.11	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.75	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.71	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.50	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.65	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.46	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.20	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.40	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.44	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	2.02	1	"	"	"	"	"	X

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Sample Identification

Trip Blank

SB93832-06

Client Project #

08-221182.00

Matrix

Deionized Water

Collection Date/Time

31-Jul-14 00:00

Received

01-Aug-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.47	1	SW846 8260C	06-Aug-14	07-Aug-14	JEG	1418370	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	2.47	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.49	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.54	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.39	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.97	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.42	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	0.77	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.48	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.89	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.6	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.97	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	80.8	1	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	100	70-130 %
2037-26-5	Toluene-d8	102	70-130 %
17060-07-0	1,2-Dichloroethane-d4	105	70-130 %
1868-53-7	Dibromofluoromethane	97	70-130 %

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1418370 - SW846 5030 Water MS</b>										
<u>Blank (1418370-BLK1)</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.50		µg/l	0.50						
Benzene	< 1.00		µg/l	1.00						
Bromobenzene	< 1.00		µg/l	1.00						
Bromochloromethane	< 1.00		µg/l	1.00						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.00		µg/l	1.00						
sec-Butylbenzene	< 1.00		µg/l	1.00						
tert-Butylbenzene	< 1.00		µg/l	1.00						
Carbon disulfide	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00		µg/l	2.00						
2-Chlorotoluene	< 1.00		µg/l	1.00						
4-Chlorotoluene	< 1.00		µg/l	1.00						
1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50						
Dibromomethane	< 1.00		µg/l	1.00						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
1,3-Dichloropropane	< 1.00		µg/l	1.00						
2,2-Dichloropropane	< 1.00		µg/l	1.00						
1,1-Dichloropropene	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Ethylbenzene	< 1.00		µg/l	1.00						
Hexachlorobutadiene	< 0.50		µg/l	0.50						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.00		µg/l	1.00						
4-Isopropyltoluene	< 1.00		µg/l	1.00						
Methyl tert-butyl ether	< 1.00		µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.00		µg/l	2.00						
Naphthalene	< 1.00		µg/l	1.00						
n-Propylbenzene	< 1.00		µg/l	1.00						
Styrene	< 1.00		µg/l	1.00						
1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00						

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1418370 - SW846 5030 Water MS</b>										
<u>Blank (1418370-BLK1)</u>										
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
Toluene	< 1.00		µg/l	1.00						
1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00						
1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						
1,2,3-Trichloropropane	< 1.00		µg/l	1.00						
1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00						
1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
m,p-Xylene	< 2.00		µg/l	2.00						
o-Xylene	< 1.00		µg/l	1.00						
Tetrahydrofuran	< 2.00		µg/l	2.00						
Ethyl ether	< 1.00		µg/l	1.00						
Tert-amyl methyl ether	< 1.00		µg/l	1.00						
Ethyl tert-butyl ether	< 1.00		µg/l	1.00						
Di-isopropyl ether	< 1.00		µg/l	1.00						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.00		µg/l	5.00						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	48.0		µg/l	50.0		96		70-130		
Surrogate: Toluene-d8	50.7		µg/l	50.0		101		70-130		
Surrogate: 1,2-Dichloroethane-d4	51.7		µg/l	50.0		103		70-130		
Surrogate: Dibromofluoromethane	47.5		µg/l	50.0		95		70-130		
<u>LCS (1418370-BS1)</u>										
<u>Prepared &amp; Analyzed: 06-Aug-14</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	<b>17.6</b>		µg/l	20.0		88		70-130		
Acetone	<b>19.2</b>		µg/l	20.0		96		70-130		
Acrylonitrile	<b>18.6</b>		µg/l	20.0		93		70-130		
Benzene	<b>18.4</b>		µg/l	20.0		92		70-130		
Bromobenzene	<b>18.1</b>		µg/l	20.0		91		70-130		
Bromoform	<b>18.4</b>		µg/l	20.0		92		70-130		
Bromodichloromethane	<b>19.5</b>		µg/l	20.0		98		70-130		
Bromoform	<b>20.2</b>		µg/l	20.0		101		70-130		
Bromomethane	<b>25.4</b>		µg/l	20.0		127		70-130		
2-Butanone (MEK)	<b>19.1</b>		µg/l	20.0		95		70-130		
n-Butylbenzene	<b>21.5</b>		µg/l	20.0		108		70-130		
sec-Butylbenzene	<b>19.4</b>		µg/l	20.0		97		70-130		
tert-Butylbenzene	<b>20.0</b>		µg/l	20.0		100		70-130		
Carbon disulfide	<b>17.8</b>		µg/l	20.0		89		70-130		
Carbon tetrachloride	<b>17.7</b>		µg/l	20.0		88		70-130		
Chlorobenzene	<b>18.1</b>		µg/l	20.0		91		70-130		
Chloroethane	<b>18.2</b>		µg/l	20.0		91		70-130		
Chloroform	<b>16.5</b>		µg/l	20.0		83		70-130		
Chloromethane	<b>20.8</b>		µg/l	20.0		104		70-130		
2-Chlorotoluene	<b>19.8</b>		µg/l	20.0		99		70-130		
4-Chlorotoluene	<b>19.6</b>		µg/l	20.0		98		70-130		

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### Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1418370 - SW846 5030 Water MS</b>										
<u>LCS (1418370-BS1)</u>										
<u>Prepared &amp; Analyzed: 06-Aug-14</u>										
1,2-Dibromo-3-chloropropane	20.1		µg/l		20.0	100	70-130			
Dibromochloromethane	19.0		µg/l		20.0	95	70-130			
1,2-Dibromoethane (EDB)	18.1		µg/l		20.0	90	70-130			
Dibromomethane	18.6		µg/l		20.0	93	70-130			
1,2-Dichlorobenzene	20.0		µg/l		20.0	100	70-130			
1,3-Dichlorobenzene	17.9		µg/l		20.0	90	70-130			
1,4-Dichlorobenzene	19.0		µg/l		20.0	95	70-130			
Dichlorodifluoromethane (Freon12)	17.7		µg/l		20.0	88	70-130			
1,1-Dichloroethane	17.8		µg/l		20.0	89	70-130			
1,2-Dichloroethane	18.8		µg/l		20.0	94	70-130			
1,1-Dichloroethene	17.6		µg/l		20.0	88	70-130			
cis-1,2-Dichloroethene	18.2		µg/l		20.0	91	70-130			
trans-1,2-Dichloroethene	17.3		µg/l		20.0	87	70-130			
1,2-Dichloropropane	18.7		µg/l		20.0	93	70-130			
1,3-Dichloropropane	18.9		µg/l		20.0	94	70-130			
2,2-Dichloropropane	20.4		µg/l		20.0	102	70-130			
1,1-Dichloropropene	18.5		µg/l		20.0	93	70-130			
cis-1,3-Dichloropropene	21.6		µg/l		20.0	108	70-130			
trans-1,3-Dichloropropene	23.0		µg/l		20.0	115	70-130			
Ethylbenzene	19.3		µg/l		20.0	96	70-130			
Hexachlorobutadiene	20.0		µg/l		20.0	100	70-130			
2-Hexanone (MBK)	20.3		µg/l		20.0	102	70-130			
Isopropylbenzene	18.7		µg/l		20.0	94	70-130			
4-Isopropyltoluene	20.9		µg/l		20.0	105	70-130			
Methyl tert-butyl ether	19.8		µg/l		20.0	99	70-130			
4-Methyl-2-pentanone (MIBK)	21.1		µg/l		20.0	105	70-130			
Methylene chloride	18.1		µg/l		20.0	90	70-130			
Naphthalene	21.1		µg/l		20.0	106	70-130			
n-Propylbenzene	19.5		µg/l		20.0	98	70-130			
Styrene	20.4		µg/l		20.0	102	70-130			
1,1,1,2-Tetrachloroethane	18.2		µg/l		20.0	91	70-130			
1,1,2,2-Tetrachloroethane	19.4		µg/l		20.0	97	70-130			
Tetrachloroethene	17.5		µg/l		20.0	88	70-130			
Toluene	18.3		µg/l		20.0	92	70-130			
1,2,3-Trichlorobenzene	19.8		µg/l		20.0	99	70-130			
1,2,4-Trichlorobenzene	20.6		µg/l		20.0	103	70-130			
1,3,5-Trichlorobenzene	21.2		µg/l		20.0	106	70-130			
1,1,1-Trichloroethane	18.3		µg/l		20.0	92	70-130			
1,1,2-Trichloroethane	19.1		µg/l		20.0	96	70-130			
Trichloroethene	17.5		µg/l		20.0	87	70-130			
Trichlorofluoromethane (Freon 11)	17.8		µg/l		20.0	89	70-130			
1,2,3-Trichloropropane	19.3		µg/l		20.0	96	70-130			
1,2,4-Trimethylbenzene	20.9		µg/l		20.0	105	70-130			
1,3,5-Trimethylbenzene	20.4		µg/l		20.0	102	70-130			
Vinyl chloride	18.8		µg/l		20.0	94	70-130			
m,p-Xylene	19.7		µg/l		20.0	98	70-130			
o-Xylene	19.7		µg/l		20.0	98	70-130			
Tetrahydrofuran	16.7		µg/l		20.0	84	70-130			
Ethyl ether	18.5		µg/l		20.0	92	70-130			
Tert-amyl methyl ether	16.5		µg/l		20.0	83	70-130			
Ethyl tert-butyl ether	20.7		µg/l		20.0	103	70-130			
Di-isopropyl ether	19.0		µg/l		20.0	95	70-130			

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# Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1418370 - SW846 5030 Water MS</b>										
<u>LCS (1418370-BS1)</u>						<u>Prepared &amp; Analyzed: 06-Aug-14</u>				
Tert-Butanol / butyl alcohol	192		µg/l		200	96		70-130		
1,4-Dioxane	167		µg/l		200	84		70-130		
trans-1,4-Dichloro-2-butene	20.2		µg/l		20.0	101		70-130		
Ethanol	335		µg/l		400	84		70-130		
Surrogate: 4-Bromofluorobenzene	49.8		µg/l		50.0	100		70-130		
Surrogate: Toluene-d8	50.1		µg/l		50.0	100		70-130		
Surrogate: 1,2-Dichloroethane-d4	50.4		µg/l		50.0	101		70-130		
Surrogate: Dibromofluoromethane	47.1		µg/l		50.0	94		70-130		
<u>LCS Dup (1418370-BSD1)</u>						<u>Prepared &amp; Analyzed: 06-Aug-14</u>				
1,1,2-Trichlorotrifluoroethane (Freon 113)	19.1		µg/l		20.0	96	70-130	8	20	
Acetone	18.1		µg/l		20.0	90	70-130	6	20	
Acrylonitrile	17.6		µg/l		20.0	88	70-130	6	20	
Benzene	19.5		µg/l		20.0	98	70-130	6	20	
Bromobenzene	19.1		µg/l		20.0	95	70-130	5	20	
Bromoform	18.9		µg/l		20.0	95	70-130	3	20	
Bromochloromethane	20.2		µg/l		20.0	101	70-130	4	20	
Bromodichloromethane	20.5		µg/l		20.0	102	70-130	2	20	
Bromoform	28.4		µg/l		20.0	142	70-130	11	20	
2-Butanone (MEK)	17.6		µg/l		20.0	88	70-130	8	20	
n-Butylbenzene	22.8		µg/l		20.0	114	70-130	6	20	
sec-Butylbenzene	20.6		µg/l		20.0	103	70-130	6	20	
tert-Butylbenzene	21.1		µg/l		20.0	106	70-130	5	20	
Carbon disulfide	19.3		µg/l		20.0	97	70-130	8	20	
Carbon tetrachloride	19.7		µg/l		20.0	99	70-130	11	20	
Chlorobenzene	19.2		µg/l		20.0	96	70-130	6	20	
Chloroethane	19.1		µg/l		20.0	96	70-130	5	20	
Chloroform	17.8		µg/l		20.0	89	70-130	7	20	
Chloromethane	18.7		µg/l		20.0	94	70-130	10	20	
2-Chlorotoluene	21.0		µg/l		20.0	105	70-130	6	20	
4-Chlorotoluene	20.6		µg/l		20.0	103	70-130	5	20	
1,2-Dibromo-3-chloropropane	20.6		µg/l		20.0	103	70-130	3	20	
Dibromochloromethane	19.9		µg/l		20.0	100	70-130	5	20	
1,2-Dibromoethane (EDB)	19.0		µg/l		20.0	95	70-130	5	20	
Dibromomethane	19.3		µg/l		20.0	96	70-130	3	20	
1,2-Dichlorobenzene	20.9		µg/l		20.0	104	70-130	4	20	
1,3-Dichlorobenzene	19.0		µg/l		20.0	95	70-130	6	20	
1,4-Dichlorobenzene	19.2		µg/l		20.0	96	70-130	0.9	20	
Dichlorodifluoromethane (Freon12)	18.0		µg/l		20.0	90	70-130	2	20	
1,1-Dichloroethane	19.1		µg/l		20.0	95	70-130	7	20	
1,2-Dichloroethane	19.6		µg/l		20.0	98	70-130	4	20	
1,1-Dichloroethene	19.3		µg/l		20.0	96	70-130	9	20	
cis-1,2-Dichloroethene	19.2		µg/l		20.0	96	70-130	6	20	
trans-1,2-Dichloroethene	18.8		µg/l		20.0	94	70-130	8	20	
1,2-Dichloropropane	19.4		µg/l		20.0	97	70-130	4	20	
1,3-Dichloropropane	19.9		µg/l		20.0	99	70-130	5	20	
2,2-Dichloropropane	21.2		µg/l		20.0	106	70-130	4	20	
1,1-Dichloropropene	20.4		µg/l		20.0	102	70-130	9	20	
cis-1,3-Dichloropropene	22.4		µg/l		20.0	112	70-130	4	20	
trans-1,3-Dichloropropene	23.9		µg/l		20.0	120	70-130	4	20	
Ethylbenzene	20.6		µg/l		20.0	103	70-130	7	20	
Hexachlorobutadiene	21.3		µg/l		20.0	106	70-130	6	20	

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1418370 - SW846 5030 Water MS</b>										
<u>LCS Dup (1418370-BSD1)</u>										
<u>Prepared &amp; Analyzed: 06-Aug-14</u>										
2-Hexanone (MBK)	<b>19.8</b>		µg/l		20.0	99	70-130	3	20	
Isopropylbenzene	<b>19.8</b>		µg/l		20.0	99	70-130	6	20	
4-Isopropyltoluene	<b>21.9</b>		µg/l		20.0	110	70-130	5	20	
Methyl tert-butyl ether	<b>20.2</b>		µg/l		20.0	101	70-130	2	20	
4-Methyl-2-pentanone (MIBK)	<b>21.2</b>		µg/l		20.0	106	70-130	0.3	20	
Methylene chloride	<b>18.3</b>		µg/l		20.0	91	70-130	0.9	20	
Naphthalene	<b>21.6</b>		µg/l		20.0	108	70-130	2	20	
n-Propylbenzene	<b>20.9</b>		µg/l		20.0	104	70-130	7	20	
Styrene	<b>21.4</b>		µg/l		20.0	107	70-130	4	20	
1,1,1,2-Tetrachloroethane	<b>18.8</b>		µg/l		20.0	94	70-130	3	20	
1,1,2,2-Tetrachloroethane	<b>19.9</b>		µg/l		20.0	99	70-130	3	20	
Tetrachloroethene	<b>19.1</b>		µg/l		20.0	96	70-130	9	20	
Toluene	<b>19.1</b>		µg/l		20.0	95	70-130	4	20	
1,2,3-Trichlorobenzene	<b>20.6</b>		µg/l		20.0	103	70-130	4	20	
1,2,4-Trichlorobenzene	<b>21.0</b>		µg/l		20.0	105	70-130	2	20	
1,3,5-Trichlorobenzene	<b>22.0</b>		µg/l		20.0	110	70-130	4	20	
1,1,1-Trichloroethane	<b>20.0</b>		µg/l		20.0	100	70-130	9	20	
1,1,2-Trichloroethane	<b>19.6</b>		µg/l		20.0	98	70-130	2	20	
Trichloroethene	<b>19.1</b>		µg/l		20.0	95	70-130	9	20	
Trichlorofluoromethane (Freon 11)	<b>19.5</b>		µg/l		20.0	98	70-130	9	20	
1,2,3-Trichloropropane	<b>19.2</b>		µg/l		20.0	96	70-130	0.4	20	
1,2,4-Trimethylbenzene	<b>21.9</b>		µg/l		20.0	109	70-130	4	20	
1,3,5-Trimethylbenzene	<b>21.7</b>		µg/l		20.0	108	70-130	6	20	
Vinyl chloride	<b>20.6</b>		µg/l		20.0	103	70-130	9	20	
m,p-Xylene	<b>20.8</b>		µg/l		20.0	104	70-130	6	20	
o-Xylene	<b>20.6</b>		µg/l		20.0	103	70-130	5	20	
Tetrahydrofuran	<b>16.8</b>		µg/l		20.0	84	70-130	0.5	20	
Ethyl ether	<b>18.9</b>		µg/l		20.0	94	70-130	2	20	
Tert-amyl methyl ether	<b>17.0</b>		µg/l		20.0	85	70-130	3	20	
Ethyl tert-butyl ether	<b>21.3</b>		µg/l		20.0	107	70-130	3	20	
Di-isopropyl ether	<b>19.7</b>		µg/l		20.0	99	70-130	4	20	
Tert-Butanol / butyl alcohol	<b>194</b>		µg/l		200	97	70-130	1	20	
1,4-Dioxane	<b>172</b>		µg/l		200	86	70-130	3	20	
trans-1,4-Dichloro-2-butene	<b>21.0</b>		µg/l		20.0	105	70-130	4	20	
Ethanol	<b>342</b>		µg/l		400	85	70-130	2	20	
Surrogate: 4-Bromofluorobenzene	49.2		µg/l		50.0	98	70-130			
Surrogate: Toluene-d8	49.8		µg/l		50.0	100	70-130			
Surrogate: 1,2-Dichloroethane-d4	50.9		µg/l		50.0	102	70-130			
Surrogate: Dibromofluoromethane	47.3		µg/l		50.0	95	70-130			

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## **Notes and Definitions**

**dry**      Sample results reported on a dry weight basis

**NR**      Not Reported

**RPD**      Relative Percent Difference

**Laboratory Control Sample (LCS):** A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

**Matrix Duplicate:** An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

**Matrix Spike:** An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

**Method Blank:** An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

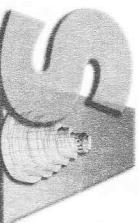
**Method Detection Limit (MDL):** The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

**Reportable Detection Limit (RDL):** The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

**Surrogate:** An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

**Continuing Calibration Verification:** The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:  
Nicole Leja



SPECTRUM ANALYTICAL, INC.

Featuring

HANIBAL TECHNOLOGY

Report To:

ECS

Telephone #:

802-241-4131

Project Mgr:

Laura Woodward

P.O. No.:

11=

12=

DW=Drinking Water

GW=Groundwater

SW=Surface Water

WW=Waste Water

O=Oil

SO=Soil

SL=Sludge

A=Indoor/Ambient Air

SG=Soil Gas

X1=

X2=

X3=

G=Grab

C=Composite

Lab ID:

Sample ID:

Date:

Time:

Type

Matrix

# of VOA Vials

# of Amber Glass

# of Clear Glass

# of Plastic

Containers

Analysis

List Preservative Code below:

2

8260 VOC

Check if chlorinated

MA DEP MCP CAM Report?

CT DPH RCP Report?

Standard

DQA\*

ASP A\*

ASP B\*

NJ Reduced\*

NJ Full\*

Tier II\*

Tier IV\*

Other:

State-specific reporting standards:

Yes

No

Special Handling:

 Standard TAT - 7 to 10 business days Rush TAT - Date Needed:

All TAT's subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed.

# CHAIN OF CUSTODY RECORD

SB 9383244

Invoice To: ECS AccountantsPage 1 of 1Project No: 08-221182,00

Site Name:

Waterville VOCs

Location:

WatervilleState: VT

Sampler(s):

LW & KPF=Field Filtered 1=Na<sub>2</sub>SO<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub>

11= \_\_\_\_\_

12= \_\_\_\_\_

QA/QC Reporting Notes:

\* additional charges may apply

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Containers	Analysis
SB9383244-03	Near Upstream Seep SW	7/31/14	1020	G	SW 3	X					
03	Upstream SW		1030								
04	Near Downstream Seep SW		1105								
05	Downstream SW		1110								
	Church St. Bridge SW		1150								
	Trip Blank										

Condition upon receipt: Custody Seals:  Present  Intact  Broken

Received by: Date: Time: Temp °C Observed E-mail to: Woodard@eesconsult.com

Relinquished by: Date: Time: Temp °C EDD format:

Corrections: Correlation Factor: IR ID #: 02 Ambien  Refrig.  DI VOA Frozen  Soil Jar Frozen

<u>Layton Woodard</u>	<u>LaBath Cramer</u>	<u>7/31/14</u>	<u>1315</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>E-mail to:</u>	<u>Woodard@eesconsult.com</u>
<u>Ch. Tech Cramer</u>	<u>Pat X</u>	<u>7/31/14</u>	<u>12:30</u>	<u>-1</u>	<input checked="" type="checkbox"/>		
<u>Fed Ex</u>	<u>DME</u>	<u>8/1/14</u>	<u>1035</u>	<u>23</u>	<input checked="" type="checkbox"/>		

From: (802) 241-4131  
Amy Beth Connell  
ECS  
1 Elm St.  
Suite 3  
Waterbury, VT 05676

Origin ID: MVLA



Ship Date: 31JUL14  
ActWgt: 31.0 LB  
CAD: 103826659/INET3550

Delivery Address Bar Code



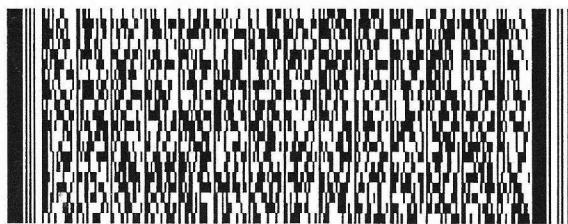
Ref #  
Invoice #  
PO #  
Dept #

SHIP TO: (413) 789-9018

BILL RECIPIENT

Laboratory  
Spectrum Analytical  
11 ALMGREN DR

AGAWAM, MA 01001

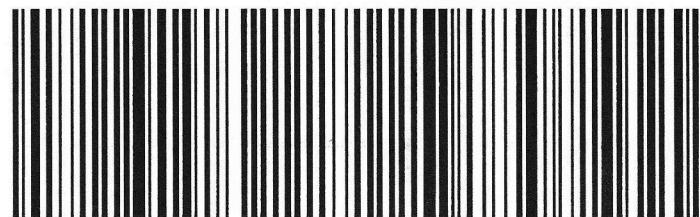


TRK# 7707 3588 0590  
0201

FRI - 01 AUG 10:30A  
PRIORITY OVERNIGHT

01001  
MA-US  
BDL

EB EHTA



522G2/ED4F/8AC9

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.